Marine Expeditionary Units (Special Operations Capable) Relevancy In The Near Term

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EXECUTIVE SUMMARY

Title: Marine Expeditionary Unit (Special Operations Capable), Relevancy In The Near Term

Authors: Major William Berris, USMC
LCDR Matthew Ellia, USN
Major James Fallon, USMC
Major Raymond Kendoll, USMC
Major George Markert, USMC
Major Michael Prosser, USMC

Thesis: *Does MEU(SOC) organization and training meet the requirement for the near term?*

Discussion: Near term (present – 2010) MEU(SOC) relevancy as an instrument of national power is tied directly to its organization, training and continued relationship with the U.S. Navy. While emerging threats have prompted recent MEU(SOC) employment against enemies in the war on terrorism, should it be assumed that the basic principles which formed the program in 1986 remain valid for future MEU(SOC)s? This paper will examine the MEU(SOC) as an instrument of national power and how it must be changed to meet the realities of the twenty-first century operational environment.

This paper will:

-Highlight significant historical features of the MEU(SOC) program.

-Address the emerging concepts, relationships and influences with the U.S. Navy.

-Discuss each MEU(SOC) major subordinate elements specific organization and training issues.

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-Compare/contrast original MEU(SOC) program objectives with contemporary mission sets.

-Compare/analyze mission essential task lists (METLs) with regard to recent MEU(SOC) operational commitments.

-Develop and recommend improvements to the MEU(SOC).

-Consider near term objectives (5 years or through 2010) to optimize MEU(SOC) effectiveness.

-Offer conclusions on continued relevancy of the MEU(SOC) program.

Conclusions and Recommendations: In examining the MEU(SOC) and its relevancy in the near term, several conclusions have been reached. These conclusions include:

- Under the Expeditionary Strike Group concept, which command relationship and leadership construct justifies the need for permanent General Officer/Flag Officer GO/FO leadership or reversion to the supported/supporting relationship.
- The MEU(SOC) must answer who owns the Marine Corps assets under the ESG concept, the MEU CO or the ESG Commander.
- Marine Corps and Navy planning structures for MEU(SOC) operations need improvement.
- Highlighted need for the MEU CE to keep pace with emerging technology in command and control.

-Major Amphibious Squadron conclusions

- Amphibious Squadron C2 requires further review to examine the advantages and disadvantages of the FO/GO ESG leadership concept in comparison with the supported/supporting PhibRon/MEU command relationship
- Possible dissolution of the Amphibious Group Staff to support future ESG FO/GO leadership and staffing.
- Analyzes the value of leadership and staff expertise from the Cruiser/Destroyer Squadrons integrated into the current ESG construct.

-Major Ground Combat Element conclusions:

- Training the GCE before joining the MEU(SOC) program needs to be standardized.
- Training Exercise and Employment Plans (TEEP)s should be better aligned with both MEF priorities, and those of Regional Combatant Commanders.
- MEU(SOC) Battalion Landing Teams (BLT) rotation policies require revision in order to better prepare for “special operations” missions and continuity.

-Major Aviation Combat Element conclusions:

- Restructuring the ACE is needed, a proposed aircraft mix offered.
- Aircraft age and current operational usage is rapidly degrading Marine aviation and by extension the ability to serve the needs of the MEU(SOC) program.
- Increased command and control platforms are needed within the ACE.

-Major Combat Service Support conclusions:

- CSSE personnel must be prepared to assume a combat mission mentality from the beginning of training through deployment.
- Increased staffing in the areas of Intelligence, Explosive Ordnance Disposal, Military Police, and linguist expertise.
- Highlighted equipment deficiencies in both individual combat equipment and major end item level suitable for MEU(SOC) deployments.

CONTENTS

Chapter 1

Introduction

The Marine Expeditionary Unit (Special Operations Capable), or MEU(SOC) program has been around since the middle 1980's, and looks much the same today as it did nearly twenty years ago. MEU(SOC)s are teamed up with amphibious shipping squadrons of the United States Navy, together forming Expeditionary Strike Groups (ESGs). ESGs represent a highly capable, forward deployed, agile, and general purpose force providing regional combatant commanders a lethal element of national power.[1]

Since its inception in 1984, the MEU(SOC) program has undergone minor modifications in both task organization and mission essential task lists (METL's). Despite these changes the MEU(SOC) program of the 21st century remains largely unchanged. Among the many reasons to take a close look at the MEU(SOC) program, the most recent an contentious are: Examining the nature of current ESG experiments, employment of MEU(SOC) units in the Global war on Terrorism (GWOT) and studying of the MEU(SOC) role in the Department of Defenses (DoD) ongoing effort to transform. MEU(SOC) relevancy is indeed important to not only the Marine Corps, but the entire Naval service. Examining MEU(SOC) program objectives with current joint operating doctrine and concepts is needed to offer regional combatant commanders with a relevant, responsive and capable joint enabling force. The MEU(SOC) program will be evaluated by analyzing each major subordinate elements and the major issues facing it in the near term (2010). The analysis will look at the MEU(SOC) Command Element (CE), Ground Combat Element (GCE), Aviation Combat Element (ACE), Combat Service Support

Comment [MB1]: Problem stmnt

[1] BGen. Thomas Waldhauser, USMC. Author interview, Marine Corps Warfighting Lab. Quantico, VA. 18 November 2004.

Element (CSSE) and the U.S. Navy Amphibious Squadrons (PhibRons). Primary sources from I, II and III MEF's MEU(SOC) programs, and corresponding U.S. Navy Amphibious Groups "PhibGroups" will be the cornerstone in forming a balanced view and analysis. The analysis is intended to produce specific recommendations and conclusions, and undoubtedly raise issues for further study and development. The analysis design will explore much of the MEU(SOC) program however, it will deliberately omit any examination of operational and tactical judgments during major MEU(SOC) operational commitments.

Relevancy?

Does current MEU(SOC) organization and training meet the requirement for the near term (to 2010)? Scholars, officers and public servants have challenged the relevancy of the MEU(SOC) program since it began, but based on its legacy and its current state, MEU(SOC)s still shine as the Marine Corps' force of the future,

> *The Marine Corps is a maritime force and is expeditionary in nature. In fact, the Marine Corps' history and legacy is a landing force from the sea. Today, Marines continue to be trained and equipped to come from the sea and fight America's battles. The unit in the Marine Corps specifically groomed for the contingency battles of the future is the Marine Expeditionary Unit or MEU.* U.S. Marine Corps. *Expeditionary Units*

Specific areas of study will be:

1) Using historical data, has MEU(SOC) program performance achieved objectives set out at its inception?

2) Does the MEU(SOC) program provide relevancy in view of joint military and national strategy?

3) Do existing and projected command relationships with the USN meet and/or compliment MEU(SOC) program objectives?

4)In dissecting each MSE, do the parts of the MEU(SOC) program compliment the whole?

5) Are current MEU(SOC) program priorities synchronized with overall program objectives?

The most prescient MEU(SOC) issue is near term relevance. Based on the transformational guidance from the Department of Defense (DoD) and the growing requirements for expeditionary forces to operate jointly, the future of MEU(SOC) legitimacy cannot rely on its legacy of operational success and instead be;

> "organized into tailorable capabilities based force packages for employment designed to produce a set of synergistic joint capabilities…capable of "plugging" into standing joint C2 structure for immediate employment by the Joint Force Commander…Decentralized execution in an uncertain operating environment requires adaptive, innovative and decisive leaders." Joint Staff. *Joint Operations Concepts 2003*

Certainly the MEU(SOC) in its current form is quite close to the joint image envisaged above by DoD, but remaining relevant during a period of transformation requires a parallel vision laser focused on the future of the MEU(SOC) program. This vision likely indicates MEU(SOC)s will be heavily involved in the testing and affirming of concepts such as; Naval Power 21, Marine Corps Strategy 21, Sea Power 21, Expeditionary Maneuver from the Sea (EMW), Seabasing, and Ship to Objective Maneuver (STOM). Command of the littorals and dominating the battle space must be the enablers and objectives viewed from the MEU(SOC) lens then translated into future MEU(SOC) relevancy.

Chapter 2

A ROADMAP TO THE MEU(SOC) ANALYSIS

Context

The Marine Corps has 7 Marine Expeditionary Units (Special Operations Capable) MEU(SOC)s. The 11th, 13th and 15th MEU(SOC)s are permanently assigned at Camp Pendleton, California; the 22nd, 24th and 26th MEU(SOC)s are permanently assigned at Camp Lejeune, North Carolina; and the 31st MEU(SOC) is assigned to Okinawa, Japan. All are supposed mirror organizations, with approximately 2,200 Marines and Sailors. In accordance with the Global Naval Force Presence Policy, (GNFPP) each MEU(SOC) is deploys aboard 3 U.S. Navy amphibious ships for approximately 6 months. These deployments provide the United States forward presence and power projection, argued by some to be the first line of defense in protecting the homeland in support of the GWOT. Pacific and Central Command AORs). The standing numbered MEU's at Camps Lejeune and Pendleton have been activated on a permanent basis since the early 1980's.[2] In Okinawa, the 31st MEU has been activated on and off for the last 40 years, and remains in an active status since 1989. Each MEU represents a microcosm of the Marine Corps' Marine Air Ground Task Force (MAGTF), which includes a CE, GCE, ACE, and CSSE.

U.S. Navy PhibRons provide the lift for the MEU(SOC)s with 3-5 amphibious ships. Ship mixes vary in size, but generally, there is 1 multi purpose amphibious assault ship LHD/LHA, 1 amphibious transport dock LPD and 1 dock landing ship LSD. The

[2] For more on MEU(SOC) operations, see: U.S. Marine Corps. *Lineage of the 11th, 13th, 15th 22nd, 24th & 26th Marine Expeditionary Units 1960-2002*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 27 Jun 2003. U.S. Marine Corps. *Lineage of the 31st Marine Expeditionary Unit 1967-2000*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 18 Jul 2001.

LHD/LHA is normally the command ship and embarks the MEU(SOC) CE and the PhibRon staff. The PhibRon staff provides command and control for all amphibious ships.

Command Element

The CE chapter will analyze the CE in a number of ways, perhaps the most pressing is the emerging ESG concepts which will further define who leads the ESG in the future. The ESG analysis will compare and contrast the west coast, east coast and Okinawa versions of the ESG concepts in order to lay out all the major issues facing not only the MEU(SOC), but the larger issues of how significant General Officer/Flag Officer leadership and command and control changes will affect future employment of MEU(SOC)s. Examining the current ESG mission statements will provide evidence there are multiple methods and techniques keeping the MEU(SOC) and naval organizations focused on the overall mission of expeditionary operations and forward presence.

Accompanying the CE analysis are several related issues such as the how the ESG must contend with and solve the issues of employing Marine Corps combat platforms in support of traditionally maritime missions. Specifically, ownership and tasking authority of Marine combat forces will be analyzed under the ESG construct. Further analysis items for the CE include comparison of the planning processes employed by both Marine and Navy elements. This provocative comparison highlights some major challenges within both services as they approach work-ups and deployments. It also highlights areas

of possible improvement for both Marine and Navy command elements as they approach the challenges of continued interoperability.

The CE analysis will close by highlighting various areas where increased emphasis of technology should be leveraged, recommended increases in CE mobility and lift, and a detailed analysis on how the seabasing can be optimized for command and control. This examination will compare capstone Marine and Navy concepts such as EMW, Sea Swap and others which provide guidance and vision for joint operational congruence well into the 21st century.

Amphibious Squadron

The examination on the amphibious squadron of the ESG will provide salient views and current analysis on the current leadership and structure issues facing the Navy. Specifically, the ESG and Expeditionary Strike Force (ESF) concepts will be reviewed to enhance understanding on the unique roles, missions and relationships which define the nature of differing naval ESG command and control structures. The nuances of possible GO/FO ESG leadership will be analyzed and developed to provide a greater understanding and appreciation for the divergent paths inside the blue water Navy and the Amphibious Navy. The examination importantly portrays the challenges of integrating two naval forces into a common purpose. The analysis will outline the complexities of protecting a large naval amphibious force with new and emerging platforms not traditionally aligned with amphibious forces.

The Naval element examination will also depict current an future impact on; future naval platforms, structure required to support the ESG construct, personnel and

command and control systems needed to maintain parity with Marine units and the application of possible maritime mission sets in consonance with MEU(SOC) capabilities.

Ground Combat Element

The GCE chapter will present several issues related to training the BLT within the MEU(SOC) construct. It will examine the differences and treatment of the west coast and east coast infantry forces specifically related to deployment rotations, baseline training requirements and their implications to MEU(SOC) pre-deployment training plans (PTP)s. Importantly, the GCE analysis will highlight levels of experience resident in all three MEF's infantry units which feed MEU(SOC)s.

The GCE examination will concurrently address the contentious moniker of "special operations capable" forces. The analysis will present views on the recent Marine Special Operations Command (MARSOC) experiment and examine the impact of proceeding down the historically persistent path in training for "special operations." [3]

Further analysis on the GCE chapter will describe the Training Exercise and Employment Plans (TEEP)s relationship with rotating BLTs within the Marine Division. This issue also highlights the decreasing relationship the TEEP has with the Regional Combatant Commanders employment intentions. It also identifies disconnects with the MEU(SOC) planning process, Rapid Response Planning Process (R2P2) and possible

[3] For more on MARSOC and MEU(SOC) history of the "Special Operations Capable" concepts see also: Kelly, P.X. Commandant of the Marine Corps, MEMORADUM, *The Marine Corps and Special Operations*, Washington, D.C.: Headquarters, U.S. Marine Corps, 7 Jun 1985.

incongruence with Atlantic and Pacific fleets Expeditionary Warfare Training Groups (EWTGs) approach to preparing MEU(SOC) BLTs.

The GCE analysis will investigate organizations and structure of BLTs with respect to the "special operations" needs of the MEU(SOC). This analysis will highlight the focus, or lack there of in raid force training in comparison to the MEU(SOC)s most likely mission sets. In examining the "special operations" construct the analysis will ultimately focus further discussion on equipping and manning the BLT for the MEU(SOC) program in order to remain relevant.

Aviation Combat Element

The chapter on the ACE delves into analysis of not only MEU(SOC) fixed wing/rotary wing (FW/RW) platforms and mission sets, but notably discusses issues related to doctrine and expectations. The ACE arguably offers the MEU(SOC) program a great deal of flexibility offering extensive capabilities in each warfighting functional area. While analyzing current ACE capabilities and expectations, the examination will draw on significant historical study. This background study forms the basis and impetus for recommendations in restructuring the ACE for the future.

The ACE portion delivers a look into areas of emerging doctrinal concepts applied to current aircraft platforms. Revealing and significant maintenance issues in aircraft age and man hours required to keep them ACE airframes flying are highlighted as areas for possible improvement. The issue of an aging aircraft fleet sets the backdrop to analyze the historical structure of the ACE and offer insights to how it has changed over time. It identifies some of the features needed in future aviation platforms, some of

which already exist and/or are planned components to approved acquisition programs of record.

The ACE analysis spends considerable time analyzing how current deployment, employment and high aircraft usage in support of the GWOT have influenced current RW rotational units and their aircraft. Each aircraft which normally deploys with the MEU(SOC) ACE is examined individually to highlight platform specific issues and their relationship to future concepts. It also includes analysis of the KC-130 and Marine Air Control Group detachments notably absent in most MEU(SOC) analysis. Some conclusions question the necessity of a persistent presence of MEU(SOC) type airframes in the U.S. Central Command area of operations, specifically Operation IRAQI FREEDOM (OIF). It also challenges current ACE structure and aircraft mixture while remaining mindful of emerging programs such as the Joint Strike Fighter and MV-22 Osprey. Also challenging the roles and responsibilities of both the UH-1N and the KC-130 aircraft in a command and control functionality for the MAGTF.

Combat Service Support Element

The CSSE chapter addresses a variety of topics, most germane are the analysis of MEU(SOC)s most likely mission sets for CSSE's. The chapter focuses specifically on humanitarian/disaster relief operations, and non-combatant evacuation operations. It also highlights the concept of extended support for the ACE. The CSSE support role for the ACE has always been cloudy at best, and the analysis provides some clear foundation for improvement and clarification on CSSE roles and responsibilities.

The most focused elements of the analysis lie in the ability of the CSSE to maintain combat mission mindsets while performing combat service support missions. The chapter also offers views on staff integration, leadership, the location of CSSE staff personnel while embarked, personnel stabilization issues, and equipment spread loading. The CSSE must maintain requisite combat skill training minimums and the analysis points to some obvious areas where CSSE Marines can improve upon basic combat skills. Additionally, the examination calls for some increases to specific staff sections. Most notable are recommended increases in the areas of intelligence, explosive ordnance disposal (EOD) and air delivery capabilities. Recent operations are cited where the increase in these low-density areas of expertise were needed to maintain CSSE relevancy and increase efficiency.

The chapter also features specific equipment related shortfalls and upgrades needed for the CSSE. Areas identified for improvement include all facets of individual equipment (ICE), communications, motor transport deficiencies, and high-visibility health service concerns raised by citations from recent CSSE operational commanders. The analysis also offers recommendations on improving the CSSEs deployed repair parts block and reviews recent examples where insufficient attention to this topic have prompted Corps wide discussions.

Chapter 3

Marine Expeditionary Unit (MEU) Command Element

If there is going to be a weak link in the Marine Expeditionary Unit (MEU), it's going to be the command element.[4] The unique contribution and most important role of the command element is its ability to command and control. Marine Corps Doctrinal Publication (MCDP) 6 discusses two vital roles that training, education, and doctrine serve in achieving MAGTF command & control. The first role is instilling and developing initiative and decision-making skills at all levels of the MAGTF. The primary aim of this role is the development of training, education, and doctrine in order to prepare units to function in different environments amid uncertainty. The second important role that training, education, and doctrine provides towards achieving MAGTF command & control is teaching the appropriate use of techniques and procedures that emphasize flexibility, speed, and adaptability.

This chapter will focus on the MEU command element and the significant role that it plays in sustaining the relevancy of the MEU (SOC) program and argues that, among the competing interests to make the MEU (SOC) program a more efficient and lethal MAGTF, there remain several areas that need to be changed or modified in order to sustain its current relevancy. While it is recognized that various concepts and initiatives must be pursued, east and west coast MEUs differ in their pursuit angles – some due to direction, some by "coast" generated approach. I will do so by 1) addressing recent concepts and initiatives, 2) identifying pros and cons of the choices available, and 3)

[4] Colonel James Lowe, Commanding Officer, Marine Corps Base Quantico, interviewed by author, 21 September, 2004

compare and contrasting what I feel are important aspects of the east coast and west coast ESG models.

Expeditionary Strike Group

The "Expeditionary Strike Group" (ESG) is here to stay.[5] The Marine Corps has cooperated with the Navy to participate in the ESG concept experimentation. The ESG combines the capabilities of surface action groups, submarines, and maritime patrol aircraft with the traditional Amphibious Ready Group (ARG) and Marine Expeditionary Unit (MEU).[6] This concept is meant to provide a greater combat capability to the combatant commander that will better allow him to employ Naval forces in support of the Global War on Terrorism. The ESG force is meant to be a flexible force that can operate in shallow, narrow waterways or open ocean, day and night, in all weather conditions, in support of Marine or joint forces operating in near-shore regions or deep inland.[7] This experiment is meant to allow the Naval Services to analyze the impact of the ESG model during the pre-deployment work-up training, deployment, and employment phases.[8] Additionally, this experiment over the next five years will highlight changes that are required to optimize service doctrine, organization, training, material, leadership and education, personnel, and facilities. The ESG mission statements will set the course for units participating in this experiment on both the east and west coasts.[9]

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[5] Brigadier General Thomas Waldhauser, Director, Marine Corps Warfighting Laboratory, interviewed by author, 18 November 2004.
[6] "ESG Update," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[7] "Comments from Epeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[8] "Comments from Epeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[9] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.

ESG Mission

The General mission statement for the Expeditionary Strike Group is provided in Navy Tactical Memorandum 3-2.1-02 (TacMemo 3-2.1-02), Expeditionary Strike Group Operations. However, this mission statement was modified for each coast.

Expeditionary Strike Group-1's mission, as defined by the ESG Commander, was defined as following prior to what would be the first ESG deployment:

> Fully integrate and enhance the elements of an ARG/MEU (SOC), cruiser/destroyer (CruDes), and an SSN [Submarine] to create a singular fighting unit, with unity of command, uniquely prepared to combat the challenge of asymmetric warfare with mobility, agility, and lethality.[10]

Expeditionary Strike Group-2's mission, as defined by the ESG Commander, was defined as following prior to the first East Coast ESG deployment:

> The ESG provides the Regional Combatant Commander, subordinate Joint Force Commander or Fleet Commander a versatile, sea-based operational force that can be tailored to a variety of missions, including quick reaction, crisis-response options in maritime, littoral and inland environments in support of US policy. The ESG is capapble of executing all ARG/MEU (SOC) missions and additional offensive and defensive operations in limited non-permissive environments; to include JTF Enabler Operations.[11]

There are however, four characteristics and seven core capabilities that are associated to all ESGs.[12]

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[10] "ESG Update," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[11] "II MEF Input to ESG Integrated Process Team Topics," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[12] "II MEF Input to ESG Integrated Process Team Topics," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

The four characteristics of ESGs are as follows:

1. Task Organized for Multiple Missions. The ESG is capable of dividing its total naval assets over multiple crisis locations to exert influence over land, sea and air space.
2. Sea-Based Strategic Reach. The ability to operate from the sea – independent of established airfields, basing agreements, or over flight rights.
3. Operational Flexibility. The ability to provide continuous presence and credible sea-based combat power, for rapid employment over a large geographic area of land, sea and air space. This capability can be used as an initial response to a crisis or as an extended presence to visibly demonstrate U.S. resolve.
4. Rapid Response. The ability to plan and commence execution within six hours of receiving an alert, warning or execute order.

The seven core capabilities of an ESG are as follows:

1. Power Projection
2. Maritime Superiority – Air / Surface / Sub-surface
3. Maritime Special Operations
4. Amphibious Operations
5. Military Operations Other Than War
6. Enabling Operations
7. Supporting Operations

Based on these missions, characteristics, and core capabilities, there are 32 integrated Mission Essential Tasks (Navy – 4, Marine Corps – 7, Navy & Marine Corps Applicable – 21) and 284 collective tasks (Navy – 122, Marine Corps 162).[13]

[13] "II MEF Input to ESG Integrated Process Team Topics," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

While the mission assigned to ESGs is similar, their command structures are not.[14]

East Coast Versus West Coast Model

For purposes of comparing and contrasting various ways to train and employ an ESG, the east and west coasts have intentionally employed different command structures.[15] Hence, there are two ESG commanders and staff models that are being looked at during the ESG experiment. The Composite Warfare Commander (CWC) model is being exercised on the West Coast. The CWC concept, developed by the U.S. Navy following WWII, was developed in order to enable the fleet to effectively carry out a multi-threat defense for a carrier battle group.[16] According this concept, the CWC exercises control through subordinate warfare commanders while retaining overall responsibilities for the forces. These subordinate warfare commanders are specifically designated. The first is the Anti-air Warfare Commander (AAWC). The second is the Anti-submarine Warfare Commander (ASWC). And the third is the Anti-surface Warfare Commander (ASUWC). Other subordinate commanders can be designated if the CWC deems necessary.

The traditional 'supported-supporting' command structure is being exercised on the east coast. This relationship has the Amphibious Squadron (Phibron) and MEU commanders, both 06s, use their forces to support the other when they receive an operational tasking and vice versa. Lieutenant Colonel Michael Killion, recently the 22D

[14] "ESG IPT USMC Equities," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[15] "Comments from Expeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[16] John Bacon, "Expeditionary Strike Group," Unpublished paper on issues and concerns pertaining to Expeditionary Strike Group. MAGTF Staff Training Program, August 2004.

MEU Operations Officer, likens the 'supported-supporting' relationship to a dog sled with the dogs representing the ESG's major elements and the mission at hand as the sled. Whoever receives the tasking, be it the ESG or the MEU, becomes the lead dog while everyone else helps pull the sled."

The following is an ESG snapshot of the various command structures used by five MEUs.

ESG	**MEU (SOC)**	**Command**
ESG 1	13th MEU	Vice Admiral
WASP ESG	22D MEU	Supported-Supporting
ESG 3	15th MEU	Brigadier General
Saipan ESG	24th MEU	Supported-Supporting
ESG 5	11th MEU	ComPhibGru 3

ESG Staffing Impacts

The Flag Officer (FO)/General Officer (GO) model have different manpower implications with respect to total staffing, high demand/low density (HD/LD) MOSs and GO officer utilization.[17] If the Marine Corps is to provide four out of the seven MEUs, the following areas will have to be addressed.

The FO/GO command structure model has a couple of variations, but both require significant increases in personnel made to the command element. In order to staff the

[17] "ESG Staffing Impacts on Manpower," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

command elements for four of seven MEUs, it would require a plus up of between 43 and 50 officers and between 7 and 28 enlisted.[18]

According to MCCDC, these billets will either have to be sourced internally by existing manning within MARFORPAC/MARFORLANT, or globally sourced without compensated structure growth, or sourced from Corps-wide compensatory structure cuts. Internal sourcing from MARFORPAC/MARFORLANT would be a considerable tax on these commands in light of the current manpower strain of individual augments in support of Operation Iraqi Freedom (OIF). Non-compensated structure growth would place the entire bill for manning on proportionate share command in accordance with MCO 5320.12E (Precedence Levels for Manning and Staffing).[19]

Moreover, the FO/GO model would require four GOs. The current GO requirement for the active and reserve component is 102, including one for an ESG. The current GO inventory is 80 active and 10 reserve, which brings the assignable difference to 12 GOs. Using the FO/GO model for future ESGs would increase the assignable difference by three GOs. The supported-supporting model does not require GO staffing.

Conversely, the supported-supporting command structure model requirement for sourcing of additional billets to support all seven ESGs would be seven officers and seven enlisted. Since the staffing would be sourced internally, this model would not require external sourcing and therefore could be implemented independently of the troop list cycle.[20]

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[18] "ESG Staffing Impacts on Manpower," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[19] "ESG Staffing Impacts on Manpower," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[20] "ESG Staffing Impacts on Manpower," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

A second staffing concern is matching up of the ESG/MEU lifecycle. The MEU (SOC) program has created a capability by a deliberate manning, training, and certifying process.[21] The MEU forms 6 months prior to deployment followed by 5 months of training and ARG/ESG integration. Next is a 30-day certification process. This is followed by 30-day pre-deployment leave/prepare period, then deployment, and again followed by a 30-day post-deployment period. This cycle is predictable and manageable from a manning and staffing perspective. It will be crucial to lifecycle maintenance that as the ESG concept is developed, that Navy and Marine Corps lifecycles be integrated. The issue is that the Navy typically is not concerned about crew cohesion. They instead rely on a global individual replacement to keep the ships manned and concentrate on "ship" certification and capability as they build ship mixes – ARGs, ESGs, CSGs.[22] As with personnel, training parallels in importance regarding the impact on the command element and achieving an efficient and effective command and control capability.

Risking the Dilution of MEU Capabilities

Since the commencement of the ESG experiment, there has been several additional training events added to the 180 days Pre-deployment Training Program (PTP). The Carrier Strike Group (CSG) has already implemented these training events, but have 9-months to complete the Navy version of PTP.[23] These additional training events are as follows:

[21] "ESG Staffing Impacts on Manpower," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[22] "ESG Staffing Impacts on Manpower," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[23] "ESG IPT USMC Equities," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

- ESG Commander's Course – 2 weeks
- Group Commander's Training – 1 week
- Maritime Group In-port Training – 1 week
- Battle Group In-port Exercise – 1 week
- Fallon Air Force Base Leader's symposium – 1 week
- Fire Support Interoperability Exercise

These additional training events impact the focus and availability of key commanders and their staffs and tend to dilute the focus of training the ESG's center of gravity – the MEU (SOC). The Marine Corps' PTP does not line up with the Navy's Fleet Response Program (FRP). In order for the Marine Corps to align with the FRP, the PTP would have to be extended by three months.[24] Also, currently the II MEF commander still has control of the MEU PTP and ensures that MCO 3502A (MEU (SOC) PTP order) and MCO 3120.9C (MEU (SOC) policy order) are adhered to.[25] If the Navy gains control of the Marine PTP under the auspices of the ESG, the MEF commander will lose flexibility and may find all PTP events directive in nature.

Other Impacts on the MEU Command Element

Following the return of ESG 1, 2, and 3, a conference among commanders and their staffs was held in Quantico, Virginia. Each MEU and Navy counterpart presented the main events and perceived outcomes from their respective deployments. The

[24] "Comments from Expeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[25] "II MEF Input to ESG Integrated Process Team Topics," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

following will outline the major impacts on the MEU Command Element that resulted from one of the two ESG models – (1) FO/GO and (2) supported-supporting.[26]

The first concern is the task of executing JTF enabling operations. The Navy and Marine Corps working group did not list this task in the mission statement. Therefore, it was assumed that it was added during staffing at higher headquarters. This concept provides the framework for serving as a Joint Task Force (JTF) Commander, the nucleus staff, and provision of the joint forces. This concept was considered, but then dropped from the original message drafters because of the limitations of the ESG/MEU. Based on the capability of the tactical satellite communications that the MEU employs ashore and the C5I capabilities of a LHA/LHD, the ability to support a JTF is only present to a limited degree. The size and scope of support required for most JTFs is not supportable by a ESG/MEU(SOC).

The second concern is the use of MAGTF aviation assets in support of MAGTF command and control. The friction point is that these aviation assets are key to the Composite Warfare Commander (CWC) construct and current Navy tactics, techniques, and procedures for protecting vital areas and high value targets. The MEU's aviation assets exist to support the fight and are insufficient in number to concurrently support the Navy's mission of surface and air defense, a mission that Navy aircraft are supposed to support.

In the 5th Fleet area of responsibility, MEU CH-46s were employed for extended day and night surface search mission when 5th Fleet Headquarters pulled the FFG/DDG assets away from the ESG – which also resulted in not having access to the two Navy

[26] "ESG IPT USMC Equities," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

aircraft that were on these ships. The tasking of MEU aircraft by the ESG commander to support Navy missions is a deviation from the way MEUs have operated in the past and will eventually need doctrinal clarification as to who controls the elements of the MEU when part of an ESG. This agreement may be something similar to the Omnibus agreement that delineates and clarifies uncertain and friction areas of MEU aircraft employment. If the ESG commander controls them, then he will need to have decision making authority early on in order to shape the type and quantity of aircraft, infantry units, and combat service support that will deploy with a MEU. Otherwise, a MEU commander goes through the motions of being in charge just to have the previous decisions and efforts that had taken place over the previous months changed when the ESG gets underway for deployment. This would have a big impact on the MEU command element and the ability to establish and refine MAGTF command and control. The critical question to the above concerns is "who owns MEU assets under the FO/GO command construct?"

The following two tables, developed by a Navy & Marine Corps ESG working group, illustrate the pros and cons of employing each of the two ESG models (FO/GO and Supported – Supporting). Both models appear to "work" as assessed by the Center of Naval Analysis (CNA). However, many difficult decisions still need to be made in order to allow Marines to navigate through the cultural and doctrinal changes that will be required in order to support and employ either command construct.[27] Otherwise, assuming that the FO/GO model remains on the west coast and the supported-supporting

[27] "ESG IPT USMC Equities," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

construct remains on the east coast, the Marine Corps will truly see a tendency for Marines to be coined as either a "west coast" or "east coast" Marine.

Flag Officer / General Officer Construct (West Coast Model)	
Pro	**Con**
Political/Military influence and access	Manpower
Staff seniority / background / knowledge	Training intensive – lacks maturity of ARG/MEU relationship (PTP Timeline)
Establishes responsibility of command to a single individual	Increases planning / execution time – extra layer of command
Increase USMC credibility to Navy (Maritime Command)	Ship infrastructure / encroachment – C2 spaces, life support, workspaces, etc
Brings 40 more staff / broader knowledge base	Potential to reestablish old CATF/CLF relationship
CNA assessment: "It works"	Difficult for USMC to support General Officer construct
Limited JTF enabler	Reduces voice of MEU commander in use of MAGTF assets
	Potentially threatens integrity of MAGTF
	Opportunity cost wrt benefit added (people, supplies, training)
	No capability for expeditionary C2 ashore

Supported – Supporting Construct (East Coast Model)	
Pro	**Con**
Based on proven method of command and control	Additional training requirement (though fits into PTP timeline)
Ensures integrity of MAGTF	May limit access to the chain of command
When compared to the FO/GO construct, cheaper – manpower, equipment, East coast ESG did not receive robust C5I upgrade that West coast received.	
Reduces staff layer (equates to time)	
CNA assessment: "It Works"	
Additional combat power with minimum manpower enhancement	
Limited JTF enabler	

The "Planning" arm of MAGTF Command and Control

Per MCDP-6, planning is a function of command and control. While developing our amphibious tactics, techniques, and procedures and concurrently developing concepts that will enhance Expeditionary Maneuver Warfare, it is essential that the Marine Corps maintains the fundamental requirements of planning. The Amphibious Squadrons (Phibrons) and MEUs have over the years employed a time-tested process know as Rapid Response Planning Process (R2P2) to plan for and execute time sensitive missions. Also used has been the deliberate planning process known as the Marine Corps Planning Process (MCPP) as outlined in Marine Corps Warfighting Publication 5-1 (MCWP-5-1). A combination of these two planning processes is also sometimes used per local Standard Operating Procedures (SOPs).

The Navy's guide to planning is the Naval Warfare NDP-1 and Naval Planning NDP-5. They both offer broad guidance regarding the naval planning process.[28] The steps and actions in these Naval guides do not match the Marine Corps's planning doctrine.[29] These mismatches outline the shortfall in naval doctrine, especially in regards to amphibious and expeditionary operations. The difference primarily is that the naval planning is focused on composite warfare and the "tasks" and "stats" plans that support the mission vice the overall operational objectives. The objective of CWC is primarily defensive in nature based on the Cold War Soviet threat.[30] The planning calls for decentralized execution in order to protect high value assets, such as ships.

[28] "Comments from Expeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[29] "Comments from Expeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[30] "Comments from Expeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

This planning mismatch is important because the naval vision calls for the composition of an ESF from an ESG and CSG under the command of a Joint Forces Maritime Component Commander (JFMCC).[31] Regardless of whether the organization is a JFMCC, Expeditionary Strike Force (ESF), or an ESG, there remains a requirement for a deliberate planning capability. If there is not a common planning guide, the planning process may lack procedures, rules, and efficiency. Hence, centralized planning and integrated plans in a Joint, ESF, or ESG environment is essential to expeditionary/amphibious operations.

To this point we have discussed some MEU command element command and control issues associated to the ESG and ESF concept. While it is my opinion that the ESG concept of employment is here to stay, it is also apparent that the challenges identified above will need to be rectified in order to ensure the efficiency of the MEU Command Element and the relevancy of the MEU (SOC) program.

Preparing the Force for the "Mission"

Per MCO 3120.9C, the MEU mission statement is:

> Provide a forward deployed, flexible, sea-based MAGTF capable of rapidly executing Amphibious Operations, designated Maritime Special Operations, Military Operations Other Than War, and Supporting operations to include enabling the introduction of follow-on-forces.[32]

Per Marine Corps Order (MCO) 3120.9C, MEUs are expected to be capable of accomplishing the following 23 tasks:

23 Mission Essential Tasks (METs):

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[31] "Comments from Expeditionary Strike Group Initial Planning Team," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.
[32] Marine Corps Order (MCO 3120.9C, Policy for Marine Expeditionary Unit (Special Operations Capable). Washington D.C.: Headquarters, U.S. Marine Corps, November 2004.

Amphibious Assault

Amphibious Raid

Amphibious Demonstration

Amphibious Withdrawal

Direct Action Operations

Tactical Recovery of Aircraft and Personnel (TRAP)

Security Operations

Humanitarian Assistance/Disaster Relief

Non-combatant Evacuation Operations (NEO)

Peace Operations

Integrated C4I, as initial entry force of larger MAGTF/JTF

Fire support planning, coordination, & control

Limited Expeditionary Airfield (EAF) Operations

Terminal Guidance Operations

Enhanced Urban Operations

Enabling Operations

Airfield/Port Seizure

Employ non-lethal weapons

Tactical Deception Operations

Information Operations

Intelligence, Surveillance, & Reconnaissance (ISR)

Anti-terrorism (defensive measures)

Rapid Response Planning Process (R2P2)

While this is the Marine Corps' directed mission and tasks that the Marine Corps states that a MEU must be able to accomplish, some have proposed other criteria that should be considered when preparing the MEUs for deployment.[33]

The first consideration is that a series of assumptions be recognized based on today's threat environment (see table 1).

> Enemies in the past needed great armies and great industrial capabilities to endanger America. Now, shadowy networks of individuals can bring great chaos and suffering to our shores for less than it costs to purchase a single tank. Terrorists are organized to penetrate open societies and to turn the power of modern technologies against us.
>
> National Security Strategy 2002

Assumptions

1. Global War on Terrorism (GWOT) will continue
2. Forward presence remains an essential component of National Security and basis for crisis response
3. Current national security emphasis on preemptive capability remains applicable
4. Increasingly restrictive access to overseas basing / over-flight / host-nation support will affect military operations
5. Anti-access threats will increase via missiles and mines
6. Future U.S. military actions will be characterized by increased joint, coalition, and interagency integration.
7. Marine Corps forward-deployed forces remain capable of operating across the range of military operations.
8. Marine Corps' special operations capability and relationships with Special Operations Command will expand.

Table 1

[33] "MEU Issues Update Brief," Unpublished brief outlining MEU Issues regarding Expeditionary Strike Group, MAGTF Staff Training Program, July 2004.

Based on the assumptions in table 1, the force of choice is one that is versatile and capable of executing three or four missions simultaneously. The operational environment will continue to be unlike others that MEUs have faced in the past. The uncertainty will be continuous and crisis will escalate rapidly and in more than one geographical area. There will be a growing requirement to execute Military Operations Other Than War (MOOTW) such as Non-combatant Evacuation Operations (NEOs). The environment may certainly require an increase in discreet operations involving intelligence gathering efforts and counter-proliferation strikes. Another likely set of missions will be an extraordinary number of operations that support GWOT, especially site exploitation type missions.[34] In most cases, it is very foreseeable that the ESG will be the force of choice and the leading element for forcible entry missions. In light of these considerations, it is recognized by officials that, in order to address the change in threats, a change in the way we organize, train, and deploy is required.

Fulfilling the Requirements for Relevancy

Enhancing MEU Capabilities

The competing interests for dollars, as well as the inability to expediently procure and change out old technology for new technology, has limited the scope of Marine Corps technological advancements. Nevertheless, some common capability sets that are being addressed cover a large spectrum.

The first of these advancements is enhanced command and control (C2). As the heart beat of the command element, it is imperative that the commander be afforded the

[34] "MEU Issues Update Brief," Unpublished brief outlining MEU Issues regarding Expeditionary Strike Group, MAGTF Staff Training Program, July 2004.

best equipment and technology available in order to optimally employ subordinate forces. Per MCDP 6, command and control will provide the commander with the tools necessary to make decisions when not all facts are known, as likely will be the case. Hence, enhanced command and control will provide better situational awareness. Enhanced C2 will also facilitate optimal coordination of maneuver and fires in support for joint forces employment.

The second capability in need of enhancing is mobility. Often times a smaller force can stand ready to be employed if the mobility provides the commander fast and efficient operational reach.[35]

The third is operational seabasing in order to provide a secure environment for sustaining the forces and command and control relatively close to the objective when we don't have a secure base ashore.[36]

The fourth is the ability to deploy with a flexible and scaleable force. This is especially beneficial when the commander is constrained by political and security requirements.

The last is deploying with improved capability sets that will enable:

- Flexible, mobile, and responsive fire support
- Improved situational awareness through position-location capabilities, UAVs, and other sensors
- Improved planning / assessment and decision support tools
- Linkage to crisis / regional support

[35] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.
[36] Anthony C. Zinni, "Forward Presence and Stability Mission: The Marine Corps Perspective," *Marine Corps Gazette*, (March 1993): 56-70.

In order to meet the above improvement, as well as many others not listed, there have been several concepts and initiatives started by the Marine Corps and Navy.

Concepts and Initiatives

With the closure of many overseas strategically important bases and stations, coupled with force drawdowns abroad, the United States is increasingly relying on forces that can operate overseas without requiring a significant logistics infrastructure ashore.[37] This is where naval expeditionary forces provide a unique contribution to our nation's global military disposition. Over the years the U.S. has had to shift from a forward presence that requires forward bases overseas, port visit, access agreements, and various other assistance agreements, to a forward presence that exploits the natural freedom of international waters. This option has decreased potential sovereign issues, lessoned intrusiveness, and has made the political and diplomatic implications palatable since we no longer require a large shore-based support infrastructure.

In 1993 the Department of the Navy issued a White Paper that outlined "From the Sea", which recognized the "fundamental shift away from open-ocean warfighting on the sea toward joint operations conducted from the sea."[38] This document calls on the Naval service to "expand on and capitalize upon its traditional expeditionary roles" and capabilities, focusing on littoral operations and the conduct of maneuver from the sea. Since this guidance in 1993, several follow-on concepts and initiatives have followed that have also hinged on expeditionary forces operating from the sea, vice traditional large build up of logistics ashore.

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[37] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.
[38] Anthony C. Zinni, "Forward Presence and Stability Mission: The Marine Corps Perspective," *Marine Corps Gazette*, (March 1993): 56-70.

Seabasing

The Navy – Marine Corps team is engaged in pursuing transformation that will allow us the ability to respond to the continuous changes in the national security environment. To this end, this transformation is centered on seabasing. Seabasing is a national capability. It encompasses the concepts and capabilities that exploit our ability to operate, as well as command and control, from the sea in order to project, protect, and sustain integrated warfighting capabilities from the sea with a focus in the littorals.[39] Furthermore, seabasing is the transformational operating concept for projecting and sustaining naval power and selected joint forces. It intends to leverage the capabilities offered by distributed and networked forces that operate globally from the sea. Based on seabasing, there have been several naval documents developed that outline naval capabilities that are key to the transformation outlook of how the Navy – Marine Corps team will operate in the future.[40]

The first of these naval capability concepts is *Naval Power 21*. This document is the Department of the Navy's vision statement that guides and supports Naval transformation as well as fusing the concepts and capabilities expressed in the Navy's service vision (*Sea Power 21*), the Marine Corps' vision (*Marine Corps Strategy 21*), and the Marine Corps' capstone concept (*Expeditionary Maneuver Warfare (EMW)*. The following is a brief description of each of these concepts.[41]

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[39] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.
[40] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.
[41] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.

Sea Power 21 establishes the Chief of Naval Operation's (CNO) vision for how the Navy will organize, integrate, and transform and outlines the operational pillars necessary to do so.

Marine Corps Strategy 21 embraces EMW and calls for the Marine Corps to deepen our strategic partnerships with our sister services and contributes to the development of joint, combined, and interagency capabilities.[42]

EMW is the Marine Corps' capstone concept that guides how the Marine Corps will organize, deploy, employ, and sustain its forces today and in the future.[43] Based on the traditional Marine Corps philosophy of maneuver warfare, this concept emphasizes an agile and flexible Marine Air Ground Task Force (MAGTF) with the operational reach to project power against critical points in the littorals and beyond. EMW is meant to build upon, vice change the previous conceptual work that the Marine Corps has developed. These previous developed concepts are not within the scope of this paper, but are as follows:

- Operational Maneuver From The Sea (OMFTS)
- Ship To Objective Maneuver (STOM)
- Sustained Operations Ashore (SOA)
- Other Expeditionary Operations (OEO)

These concepts will provide a unique command and control challenge for the MEU command element since it is assumed today that the MEUs will be the primary force that will employ these concepts in the near future. The first challenge will be the

[42] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.
[43] "Marine Corps Warfighting Concepts, Capabilities, and Initiatives," URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>, accessed 1 December 2004.

longer lines of communications during the execution of missions.[44] This will primarily impact the communications aspect of command and control. While all services heavily rely on tactical satellite communications, the issue is with the number of channels available to the commander based on other C4 competing interests that the geographical combatant commander must balance. The next challenge will be the competition and balance of the employment of over-the-horizon assets such as helicopters and landing craft. The three big consumers of these assets will be troop lift, command and control, and movement of supplies. The third challenge associated with these concepts is the extended on-station time that may be required of amphibious ships. The issues with amphibious ship on-station time have initiated another concept initiative.

Sea Swap

During ESG-3's deployment to the North Arabian Gulf in 2004, the amphibious ships carrying the flag staff were required to return to homeport for ship and personnel rotation.[45] Therefore, the ESG staff that originally deployed on the USS Belleau Wood subsequently cross-decked to the USS Essex in order to remain in theater longer.

This is one example of ship time on station and personnel issues associated with operating from sea for an extended period of time. The concept being developed by the Navy to alleviate ship on station dilemmas is the "Sea Swap" concept. Sea Swap is going to be a two-year experiment that rotates crews onto forward deployed ships in order to

[44] Brigadier General Paul Lefebvre, Director, MAGTF Staff Training Program, interviewed by author, 20 August 2004.
[45] Sonja Stone, "ESG 3 Proves Flexibility, Mobility with First Staff Cross Deck at Sea," Navy Newsstand, URL: <www.news.navy.mil>, accessed 15 December 2004.

keep those ships operating in a combat theater beyond the traditional six-month deployment.[46]

Meanwhile, the Marine Corps is studying whether an entire 2,200-man MEU could be swapped out at sea onto different amphibious ships. The Commandant of the Marine Corps recently commented on Sea Swap. "Just the thought of taking 2,000 Marines and 2,000 Sailors, getting them to where you do the swap, at the right time, doing the swap and taking 4,000 Marines and Sailors out, just in itself is a challenge". Even once the logistics of moving 4,000 Marine and Sailors around has been defeated, the command and control will be the next challenge.

One problem linked to Sea Swap that could prove to be devastating is the potential break in Command, Control, Communications and Computers (C4).[47] Currently, many of the operating systems that the MEUs deploy with are categorized as Tier 2 systems. Tier 2 systems are those that the MEU brings aboard with them, connects to the ship's network backbone, and then takes ashore when they off-load in order to establish C4 ashore. While the problem of signing over systems may solve the accountability issue, an issue will still exist since the MEU that is going ashore will still have a requirement to use these systems. In order to support the Sea Swap concept, the Marine Corps - Navy team will have to develop a course of action that provides additional systems to fill in the requirement gaps.

[46] Christopher Munsey, "Navy Seeks New Ways to Deploy Marines for War," *Marine Corps Times*, (20 September 2004).
[47] "ESG Update," URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>, accessed 15 November 2004.

The Optimal Model

It is my opinion that the addition of cruiser destroyer ships as part of the ESG is of significance operational value to the employment of the Landing Force and that the addition of a one-star to this robust set of warfighting capabilities neither increases nor decreases the volatility of landing force employment. Therefore, the east coast command construct represents the optimal model.

Personnel

The Commander, Fleet Forces Command (CFFC), has not endorsed the west coast model, using the CWC concept commanded by a one-star Admiral or General.[48] In a time of shortage of personnel and an ever increasing rise in technology, it is surprising that a command has opted to endorse a model that requires so many more Marines and Sailors than another model that possesses the same amount of equipment and technology.

Contrary to the west coast model, the east coast model minimized the number of Marines and Sailors that were required to augment the ESG and still maintaining sufficient forces that were required to man the equipment, plan, and carry out everything listed on the Mission Essential Task List (METL).

The model that I recommend has a one-star Admiral or General command the ESG and assumes that the minimum requirement of the ESG model is to have a one-star in command. However, this model would not have an additional staff for the commander and wouldn't have the ESG commander on the command ship full time. As employed on the east coast ESG-2 model, the augmented Phibron staff would remain as is and would also serve as the ESG commander's staff. This would significantly decrease the number of staff officers that would otherwise have to be billeted on an already over crowded ship.

[48] Guest speaker, speech presented at USMC Command & Staff College, 14 March 2005.

This model also provides the commander with the flexibility to work ashore in CONUS or and overseas location as well as remaining aboard ship when necessary. While having this commander operate ashore may sound unconventional, it is the unique contribution of this commander that is most important. To date, the most impelling reasons to have a one-star in charge of ESG is to "get the mission"[49] Maybe while the ESG is deployed to CentCom AOR, the one-star and part of the staff can operate from somewhere in Bahrain where they could first hand influence the assignment of missions. Unfortunately, one unique contribution that I would of expected the west coast model one-star staff model to provide is planning. Whether they did or not, CFFC has recommended an ESG model that assigns a one-star to the ESG without an additional staff.[50]

Hence, the east coast model best demonstrates economy of force and should continue to be the model for personnel structure in the near future as well as once a one-star officer is assigned.

Employment of the Landing Force

In both cases of the east and west coast models, in recent deployments the Navy aboard ESG ships moved the Landing Force from their homeport (San Diego, Ca or Norfolk, Va) to a Sea/Aerial Port of Debarkation (S/APOD) in preparation for follow-on operations ashore.[51] Subsequently in both examples, the Landing Force operated ashore for the remainder of their deployment and did not conduct any operations with the Navy aboard ESG ships.

In recent MEU (SOC)/ESG deployments, the ESG construct has not proved to significantly enhance the operational posture of the MEUs that have left ships and gone

[49] Guest speaker, speech presented at USMC Command & Staff College, 14 March 2005.
[50] Guest speaker, speech presented at USMC Command & Staff College, 14 March 2005.
[51] Christopher Munsey, "ESG 3 Ships return home from War," *Marine Corps Times*, (20 February 2005).

ashore for the remainder of their deployment. Therefore, the majority of debate as to which model was most operationally effective has for the most part been internal to the Navy. Since evidently the capability sets between east and west coasts has been a wash in comparison, the majority of the comparison has been which model was able to accomplish more and why. This debate boils down to many senior officers advocating that the west coast ESG conducted more missions because ComUSNavCent was confident with giving the one-star led ESG with the mission and not the 06 grade led ESG.[52]

[52] Guest speaker, speech presented at USMC Command & Staff College, 14 March 2005.

Chapter 4

Amphibious Squadron (PHIBRON)

“ The United Naval Service- the Navy and Marine Corps- operates in the oceans and littoral regions to project power and influence of the nation across the sea to foreign waters and shores both in peace and war.”[53] Currently the Navy and Marine Corps contributes power to theater commanders in the form of Carrier Strike Groups, Expeditionary Strike Groups with embarked MEU, and independent deployers. These forces are trained, organized and equipped to conduct a wide range of tactical evolutions from peacetime engagements to power projection from the sea. Because forward deployed Naval forces are available to respond quickly, require minimum support and are less constrained by potential diplomatic restrictions that can be imposed on land based forces by host nations, the Navy-Marine Corps team enjoy far greater employment options that the Army or Air Force and can respond to most crisis situations quicker than other services and with a wider range of tactical options.

In the last 15 years, the Navy has shifted its strategic focus from power projection to littoral operations. This was first articulated in “From the Sea” and “Forward . . .From the Sea” and has continued to evolve with “Sea Power 21”. Concurrently the Marine Corps have experimented with their amphibious doctrine as well with Operational Maneuver From the Sea (OMFTS) and Ship to Objective Maneuver (STOM). With the implementation of Sea Power 21, OMFTS and STOM the Navy – Marine Corps team look to offer the Combatant Commanders a potentially significant and far reaching

[53] Department of the Navy, Forward …From the Sea, (Washington DC: Department of the Navy) 1995, p.i.

capability through the advantages they naturally possess, versatility, agility, quick response and minimal land based support from host nations to accomplish a variety of missions. It envisions the capability to conduct an amphibious assault from the sea, but without the laborious build up of power ashore. In fact, numerous operations would be supported from the sea by a sea base. In order to realize this potential, an appropriate and effective command and control structure must be established. The current supported-supporting relationship employed by Amphibious Squadron (PHBIRON) and Marine Expeditionary Unit (MEU) staffs are adequate in the planning and execution of amphibious operations. This relationship has been proven successful repeatedly in numerous operations during and since World War II. However, as technology and doctrine evolve to meet the requirements in executing Sea Power 21, OMFTS and STOM, a new PHIBRON- MEU (SOC) command and control structure will also be required to transform to provide an effective tool for combatant commanders. Increased focus on joint interoperability, and a capability to rapidly introduce credible and sustainable forces into theaters are critical factors that will determine which forces the combatant commanders will employ in future operations. It is critical for the Navy and Marine Corps to continually assess the PHIBRON-MEU command and control structure to keep it relevant in the combatant commanders tool bag. Before proceeding, we will assume that the new doctrines under current experimentation must be proven for a new C2 organization to emerge and vice versa. The previous chapter examined the role of the MEU Command Element and current experimentation with the Expeditionary Strike Group, and Sea Basing concepts and its affect on the MEU Command Element. This chapter will examine the same concepts discussed previously and its affects on current

PHIBRON organization, training and the future of Amphibious Warfare Doctrine. This chapter will also provide recommendations as to future command structure pertaining to the current experimentation.

Amphibious Doctrine

In order to proceed with the case of a new command and control structure for a PHIBRON/MEU staff it is necessary to review how we arrived here in the first place: Joint doctrine for amphibious operations have four key characteristics:

1. **Integration between the Navy and landing forces**: The key characteristic of an amphibious operation is close coordination and cooperation between the Amphibious Task Force (ATF), the Landing Force (LF) and other designated forces.
2. **Rapid buildup of combat power from the sea to shore:** The critical requirement of an amphibious assault is the necessity for swift, uninterrupted buildup of sufficient combat power ashore from and initial zero capability to full coordinated striking power as the attack progresses toward an amphibious force objective.
3. **Task- organized forces:** These forces are capable of multiple missions across the full range of military operations to enable joint, allied and coalition operations. Amphibious forces are tasked organized based on the mission.
4. **Unity of Effort and Operational Coherence:** The complexity of amphibious operations and the vulnerability of forces engaged in amphibious

operations require an exceptional degree of unity of effort and operational coherence.

Three of the four characteristics are relevant to the discussion concerning the emerging new concepts and addressing command and control issues. The ability to be task organized is not relevant in addressing C2 structure.

The concept of supporting/supported relationship between the Commander, Amphibious Task Force (CATF) and Commander Landing Force (CLF) has dominated amphibious doctrine for the past 60 years. The concept of this particular command relationship is a legacy of World War II, when amphibious operations were conducted as Navy-Marine Corps operations in a theater where a Joint Force Commander had little to do with the actual direction of the operation. Today's operational environment is radically different, where the Joint Force commanders drive operations from planning all the way through execution. Current joint amphibious doctrine, as reflected in Joint Pub 3-02 has not undergone any major revision since the original amphibious doctrine evolved in the years between the two world wars and refined during the epic campaigns fought in the Pacific and Korea. One only needs to look at PHIBRON mission statement, and listen to current PHIBRON commanders to understand how ingrained the concept of CATF/CLF, supported/supporting relationships are. Only three out of nine Amphibious Squadrons mention the capability to conduct or assist in Joint Operations, yet all mention

the ability to support planning and execution of amphibious operations at the MEU level.[54]

> "Primary mission is to plan and execute amphibious operations including embarkation, transit to an objective area, and assault under combat conditions employing the latest and most effective amphibious force doctrine"[55]

Even with the current experimentation of the ESG, the concept of CATF/CLF remains within the East Coast Model as evidenced by the following quote from the ESG commander.

> "We have a unique command relationship in ESG-2. I command the Navy assets of the ESG while the 22nd MEU commander, Col. Kenneth McKenzie, command the Marine assets. Our command structure is a supporting-supported relationship. We work together to make decisions that involve both of our areas of responsibilities."[56]

The above statement is an accurate reflection on the current Joint doctrine, which supports the dual commander roles, and "unique" command relationship. While both the CATF/ CLF retains co-equal status during the planning phase, supported and supporting relationship can switch between the two commanders depending on mission requirements.[57] Obviously this has the potential to cause confusion over who is actually in charge.

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[54] Missions statements were accessed through each Amphibious Squadron's official website. Another interesting aspect is that only one of the websites mentions the term ESG, a concept that is gaining support.
[55] Excerpt from CPR1 Primary mission statement, URL: https://www.cpr1.navy.mil/mission.htm accessed 12 December 2004.
[56] Quote taken from CAPT Steven Joachim, ESG2 Commander on 23 Dec 2003. "WASP Strike Group and 22nd MEU Return Home After Successful ESGEX", Navy Newsstand, 29 Dec 2003.
[57] Chapter IV, Section B-1 in Joint Pub 3-02 (Joint Pub for Amphibious Doctrine) delineates who are supported and supporting during different phases of various amphibious operations.

In 2001, General James Jones, CMC, USMC addressed the issue stating in an ALMAR:

> " The command relationship between CATF, CLF and other support forces shall be specified in the initiating order and or establishing directive. The Proposed revised definitions of Amphibious Force, Amphibious Task Force, and Landing Force clarify current doctrinal definitions of CATF and CLF as descriptive terms."[58]

Joint Doctrine in these instances state:

> "If not specified in the order initiating the amphibious operation, the CATF and CLF will determine who has primary responsibility for the essential tasks during the mission analysis in the planning process."[59]

Why does Joint doctrine leave two commanders as coequals during planning and, devoid of any higher guidance, allow them to determine who has command during the different phases of operation? Does this not contradict the principal of unity of command, having one accountable leader responsible for the success or failure of an operation? Not in the case of amphibious warfare, where both Navy and Marine Corps personnel bring expertise in the different phases of a mission that involves sea, land and the area where they meet, the beach. As I stated before, the CATF/CLF organization and supported/supporting relationship has existed for over 60 years. The concept works. Because of its success and institutionalization within the amphibious community any alternative system or concept that the Navy-Marine Corps team experiments with will meet resistance. As stated in the previous chapter "For purposes of comparing and contrasting various parameters of the ESG, the east and west coast have intentionally employed different command structures." It is logical that the reason behind this is to see if an alternative concept of command structure and relationship can replace one that has

[58] CMC Washington DC, ALMAR , 231100Z FEB 01, "Naval Command Relations"
[59] Joint Pub 3-02, pg II-6.

been tested and refined for over 60 years. Do we need to replace the CATF/CLF command relationship? The Navy's and Marine Corps' desire to transform the PHIBRON-MEU team into a "joint" amphibious force command is tempered by the acknowledgement of the command system that has been successfully operational and battle tested. Ironically, examining the mission statement for the first two ESG's (stated in the previous chapter) reveals: ESG 1 mission statement specifically addresses unity of command and is commanded through a single Flag Officer, eschewing the co-equal CATF/CLF model. Yet, even with this single commander model there is no mention of conducting Joint operations as was envisioned in the original concept. ESG 2, using the co-equal CATF/CLF command structure, focuses in its mission statement its versatility and capability of executing not only amphibious missions but also those that include JTF Enabler operations.

ESG/PHIBRON Organization

The previous chapter thoroughly discusses the two models of ESG organization and the corresponding manning, training and command issues affecting the MEU. The impact to PHIBRON organization, manning and training widely varies when comparing the different command structures. Let us first examine the East Coast model. ESG 2 using the traditional supported/supporting command relationship increases the PHIBRON staff from 24 to 30 personnel (4 officers and 2 personnel). This increase is comprised mainly of liaison officers from the CRUDES and submarine assets that bring the strike capability to the ESG. A fairly minimal impact to the current PHIBRON organization.

As with the MEU, the Flag Officer/General Officer (FO/GO) model involves more significant manpower increases within the PHIBRON to meeting the staffing requirements. Several manpower studies have been conducted by Commander, Amphibious Group TWO and Commander, Amphibious Group THREE to determine the extent of the manning investment of establishing 4 FO/GO ESG models on either coast and an additional forward deployed ESG. Even incorporating an entire PHIBRON (24 to 26 personnel) the manpower requirement for a FO/GO staff would increase by 17 personnel per ESG. A second option is still being debated to disestablish the two Amphibious Groups (CPG 2 and CPG3) and incorporate them into four FO/GO ESG model per coast. While the savings from naval personnel manning would be minimal (approximately 4 to 5 personnel per coast), MEF level commands would have to deal with four ESG command organizations vice going to one Amphibious Group to coordinate training, logistic and personnel issues. The issue is keeping an ESG staff operational vice administrative.

Within both ESG models, the PHIBRON have made recent changes to key billets to correspond more closely with their MEU counterparts. For example the Operation Officer within a PHIBRON was previously billeted to a second tour Department Head O-3 as compared to a post XO O-5 for the MEU S-3. Now the N-3, (Staff Operations Officer) is a post command O-5's which match their MEU counterparts. Several billets including Chief Staff Officer, C4I Officer and other key billets have been changed to more senior personnel with staff experience. Why is this significant? In a word, experience. Officers now filling the billets are those that have not only more operational expertise but also tactical experience in littoral warfare. Junior officer placed in assistant

billets are slowly gaining the experience necessary to become successful vice getting thrown in to the fire without the proper training.

Scalability is an additional manning issue that needs resolution. Can a standard East Coast model ESG (two O-6's in a supported/supporting role) provide the command and control needed for a MEB size force? Absolutely not! Does a West Coast model ESG (FO/GO with a larger staff) have the capacity to handle a MEB size force? Possibly. Let's take a look at how this can happen.

A PHIBGRU staff is primarily organized for administrative functions (i.e., managing maintenance, basic training, schedules and non-operational issues) rather than tactical functions. By comparison the PHIBRON overseas the operational employment and training of the sips throughout the work-up phase and the deployment while maintenance and administration still remains with the PHBIGRU staff. If a PHIBGRU commander is called on to conduct tactical operations (normally large scale operations such as OIF I) standard procedures call for the PHIBGRU commander to bring key members of his staff along while subsuming one of his PHIBRON commanders as the chief of staff for the tactical operation. Concurrently, PHIBGRU's billeted chief of staff and other selected members remain ashore to perform their respective duties as part of the administrative chain of command. The subsumption of a PHIBRON commander also includes the rest of the PHIBRON staff to help perform the tactical planning and execution function of the PHIBGRU. However, in this case this creates an ad hoc staff made up of have PHIBGRU and half PHIBRON personnel. There is a great deal of individual operation expertise but the group seriously lacks any cohesiveness as a tactical

staff. If one were to use the ESG west coast model with a FO/GO in charge with a complimentary chief of staff from the other service, a tactical staff could develop more cohesion and working experience over training together over a longer period of time than the adhoc PHIBGRU-PHIBRON staff. This is not to say that the current PHIBRON or ESG model has the sufficient resources to control a MEB sized force, but with the proper adjustment to manning a west coast version of the ESG, a cohesive well equipped battle staff located on an LCC vice a LHD/LHA could provide sufficient command and control.

ESG/PHIBRON Leadership

The Navy and Marine Corps have published visions of new doctrine, such as, Sea Power 21, Ship to Objective Maneuver, Operational Maneuver From the Sea and Expeditionary Maneuver Warfare. From the two different ESG models, one (CATF/CLF) model has existed for over 60 years. The other model (FO/GO) is a radical departure from our current joint amphibious doctrine. Each new doctrine calls for improvement in command and control, yet as part of the ESG experiment we use the old structure to see if it works. These concepts support a new model of command structure one represented by the FO/GO ESG. Before we can examine if a FO/GO ESG is an acceptable model for the new doctrine, a summary of each concept will be presented. This summary is to point out key ideas that are relevant for arguing the case of the FO/GO ESG model.[60]

[60] Relevant ideas are used from each concept respective published work. Author assumes that reader is familiar with each of these concepts presented.

SEA POWER 21 / SEA BASING

Sea Power 21 was developed to be a guide to how the Navy will organize and transform for the 21st century. There are 3 main concepts, Sea Strike, Sea Shield and Sea Basing. The following are key capabilities Sea Strike provides:

- Amplified, effects-based striking power
- Enhanced war fighting contribution of Marine and Special Forces
- 24/7 offensive operations
- Persistent intelligence, surveillance and reconnaissance
- Time-sensitive strike
- Electronic warfare/information operations
- Ship to Objective maneuver[61]

The following are key capabilities Sea Shield provides:

- Projected defense for joint forces and allies ashore
- Sustained access for maritime trade, coalition building and military operations
- Enhanced international stability, security and engagement
- Sea/Littoral Superiority
- Force entry enabling

Sea Basing, the third leg of the Sea Power 21 triad would be a core competency for a FO/GO ESG. Sea basing provides the Joint Force Commander with an autonomous base of operations that function in international waters free from hindering coalition

[61] "Sea Power 21", ADM Moore, USN, Department of Navy, 2003.

requirements. Sea Basing would provide global command and control and logistical support for military operations ashore.

Sea Basing impacts include:

- Pre-positioned war fighting capabilities for immediate employment
- Enhanced joint support for a fully netted, dispersed naval force
- Strengthened international coalition building
- Increased joint force security and operational agility
- Minimized operational reliance on shore infrastructure

Sea Basing brings the following capabilities:

- Enhanced afloat positioning of joint assets
- Offensive and defensive power projections
- Command and control
- Integrated joint logistics
- Accelerated deployment and employment timelines

SHIP TO OBJECTIVE MANEUVER

The following is a list containing relevant STOM issues that support a FO/GO ESG model:

- Landing forces strike directly from the ships to the objective without regard for geography
- Emerging technologies are altering the nature of expeditionary operations.
- There will always be a requirement for forcible entry from the sea.
- Amphibious forces will remain over the horizon to counter ever increasing coastal and air defense systems**.**
- Amphibious maneuver replaces the ship-to shore movement.
- STOM emphasizes sea-based command and control, logistics, and fire support.
- Securing the beach head for C2 and logistics is no longer needed
- Amphibious operation terminates with mission accomplishment, not transfer of command ashore. [62]

EXPEDITIONARY MANEUVER WARFARE

The final doctrine summarized in support of a FO/GO ESG model is the Expeditionary Maneuver Warfare as written by General J.L. Jones, former Commandant of the Marine Corps. The following are relevant concepts to remember:

- Sea basing allows Marines to commence sustainable operations without massive buildup of supplies ashore.
- Changes in operational concepts may necessitate changes in organizational employment and deployment.
- Organization structure must be mission oriented.

[62] "Ship to Objective Maneuver", General Jones, USMC, Department of Navy, 1997.

- Maneuver in all area- sea, air and land
- C2 will remain at sea
- Developmental effort required to improve C2
- Integration required of both Navy and Marine Corps operational concepts, systems and acquisition strategies

STOM / SEA BASING IN RELATION TO ESG MODELS.

The emphasis in Sea Basing, STOM and EMW center around single command structure that is sea-based and conducts maneuver warfare from the sea.

- Ship- to Objective Maneuver call for rapid projection of combined arms and teams ashore, but emphasizes sea-based command and control, logistics and fire support.[63]

Reading this statement, one may ask, under STOM is it necessary to establish a beachhead? The most important reason to establish your beachhead is:

1. Logistic support and resupply
2. Establish command and control. In the CATF/CLF command structure, the CLF would transfer his command element to shore to be closer to the engagement.

In STOM, the Marine Corps admits its opinion on the future of lodgments on beachheads:

[63] STOM, Section II-14.

- True ship-to objective maneuver is not aimed at seizing a beach, but at thrusting combat units ashore in their fighting formations, to a decisive place, and in a sufficient strength to ensure mission accomplishment.[64]

With this in mind, and the fact that STOM supports sea-based command and control, the requirement for the supported commander to go ashore is negated. However this raises the issue, is sea based C2 equipment adequate enough for the commander to conduct the operation? This is where technology must catch up to doctrine to make this work. A recent example of this can be seen in ESG 1's initial deployment. The ESG commander, RADM Conway gutted several compartment in the superstructure of his command ship to install a joint operations center for senior Navy and Marine commanders. Previously, each had a separate post on the ship. This new command post enables the ESG commander and his staff to be fed information and develop a good situational awareness at any time.

Another option to improve C2 would be to have the ESG located on an LCC vice the LHD/LHA. The LCC is a ship that was specifically designed to serve as the command ship for the CATF and CLF. Currently the two LCC's are home to the numbered fleet commanders . The command ships currently used , the LHA's/LHD's have adequate C41 capabilities but until only recently these ships did not receive the same priorities for communication upgrades as the navy's premier capital ship, the aircraft carrier.

STOM also supports the idea of a CLF becoming the supported commander for an entire sea-based amphibious operation.

[64] STOM, Section II-7.

- Placing responsibility on the landing force commander for controlling movement from the ship to the objective is a significant departure from current doctrine. The organization and coordination agencies of the naval force must adapt to fully exploit the advantages offered by new technology.[65]

One can interpret that to mean that the CLF could be given direct command of naval assets in certain situations. In that same line of thought the CATF could be put in command of ground forces. Than it could be possible to establish a single command structure regardless of the commander's service whether it would be a Navy Admiral or a Marine General Officer.

STOM changes the way of executing amphibious warfare by eliminating the ship to shore movement and replacing it with amphibious maneuver.[66] The basis for maneuver warfare comes from the Marine Corps' paper "Expeditionary Maneuver Warfare" (EMW) written by former Commandant of the Marine Corps, General Jones. Sea basing and the requirement for C2 to stay out at sea is an integral part of this doctrine. EMW also recognizes the importance of integrating C2 systems under one command, making it seamless. The paper refers to C2 systems under the technological sense, but it can also be applied to command and control structures as well. With an overall ESG commander, whether it would be a Flag Officer or General Officer it would provide a seamless capability. There would be no transfer of commands, no turnovers that one finds in a CATF/CLF command structure. Taking into account the face pace of operation today it would eliminate the need for any "catching-up" involved during turnovers. One

[65] STOM, Section II-23.
[66] STOM, Section II-16.

commander from the beginning to the end of operation. As good as Sea Basing, STOM and EMW sound they still need to be proven through experimentation.

EVALUATION OF ESG EXPERIMENT

To properly test a concept, there must be criteria to evaluate it. The criteria chosen to evaluate the Expeditionary Strike Group concept was further complicated by using the two different command and control models. Each ESG model has demonstrated flaws as well as validated certain concepts during their deployments. ESG 1, under the FO/GO model, was unable to test its ability to operate with one foot ashore and one foot at sea as it was designed. Upon entering Fifth Fleet, ESG 1 was directed to deploy its MEU inland and its seagoing assets were dispersed. Finally, it had no opportunity to functions as a joint task force, one of the ESG's designed capabilities. In fact the ESG revalidated the concept of split ARG operations. Obviously, this was not one of the criteria it was meant to validate.

ESG 2, a CATF/CLF model, obvious shortfall is its inability to become a JTF. The current logic that permeates this issue is that you need a Flag or General Officer in charge to be a JTF. The ESG staff just did not have sufficient personnel and communication assets to command or control with a JTF size force.

The one bright spot that has come from the ESG experimentation is the combining within the staff expertise in both amphibious warfare and strike warfare. Liaison officers from the cruisers/destroyers (CRUDES) within the staff have promoted a better understanding in the two separate communities (CRUDES /AMPHIB) of Surface

Warfare. The addition of a submarine officer and submarine asset to the ESG further enhances its potential capabilities. Unfortunately, the only surface community not within the ESG staff as a liaison officer is one from the mine hunting community. This is perplexing, in that one would think being in the littorals that sort of expertise would be of great use. The MEU(SOC) benefits from this combined staff by being able to directly plug into and communicate with not only the amphibious staff experts but also those assets that can provide naval gunfire support and strike warfare support for operations further inland.

The Center of Naval Analysis is conducting an analysis of the two models to determine a uniform ESG staffing model. However, rarely has a new concept been determined successful by a single-event based test. It will require sustained experimentation to validate the concept. Depending on the mission assigned the staffing model can widely vary between ESG staffs.

SUMMARY

The Navy and Marine Corps have experimented with the traditional amphibious doctrine favoring of a sea-based logistical supply center where the sea is treated as a maneuver space. This sea also houses the command and control center of the operation negating the need for a commander ashore. If (and that is a very significant if) there is no need for a land-based commander, why is the CATF/CLF still used? Logically there would only be a need for a CATF or a CLF with either service in charge of both naval and ground assets promoting a unity of command that could not be achieved under the

dual command structure of CATF/CLF. This in itself would support the idea of the FO/GO ESG model.

Technology, equipment and doctrine are evolving, yet the command and control organization is still in experimentation. It is extremely difficult to develop new doctrine without providing a suitable command and control organization to administer it. The decision for the ESG experimentation is which model to follow. The current doctrine supports using the FO/GO model. But at what cost? Manning increases, training disruptions, and current misalignments between the PHIBRON and MEU staffs all plague this C2 concept. Yet the FO/GO ESG model does provide for flexibility, broader operational and tactical experience, and a unified command.

How does all this affect the relevancy of the MEU? The MEU like the PHIBRON is under a continuous assessment of how it operates, how it is organized and what ways can we make it more efficient. With the ESG experimentation and promotion for the component concepts of Sea Power 21 the PHIBRON is going through radical changes, in it's command structure, training regimen and manning. These changes will have a lasting and significant impact on the command relationship and training with the MEU (SOC).

Chapter 5

Ground Combat Element

Introduction

Since the creation of the MEU (SOC) program the Mission Essential Task List has grown to 23 missions of which, the Battalion Landing Team is the primary executor of 20. Operations in support of the Global War on Terror have decreased the amount of training time available while arguably providing a more clearly defined METL for BLTs deploying in the near term. Marine Corps Order 3120.9 B published just two weeks after the tragic events of September 11, 2001, directs the Marine Corps as an institution, to examine the relevancy of the Marine Expeditionary Unit (Special Operations Capable) construct. "This order provides the foundation for the Marine Corps to review, validate, add and/or eliminate MEU(SOC)capabilities as well as examine our structure and training programs to ensure continued relevance."[67]

Given the limited training time available is the BLT efficiently organized, trained and equipped to execute the most probable missions?

This chapter will begin by examining the pre-9/11 paradigm during which Battalion Landing Teams specifically and the MEU (SOC) in general achieved extraordinary success for nearly two decades. The Marine Corps' preparation of Battalion Landing Teams will be examined under the general construct of the DOTMLPF model.

[67] Marine Corps Order 3120.9B Policy for Marine Expeditionary Unit (Special Operations Capable) p 1, 25 Sep 01

Pre-9/11 MEU (SOC) Construct

The MEU (SOC) program was designed to enhance the special operation capabilities that were inherent in the Corps' Title X responsibilities. During the first twenty years of the program's existence MEU (SOC) were engaged in a multitude of small-scale engagements and contingencies. As depicted in figure 1-1, a vast majority of these missions involved a sizeable footprint, along with a sustained presence.

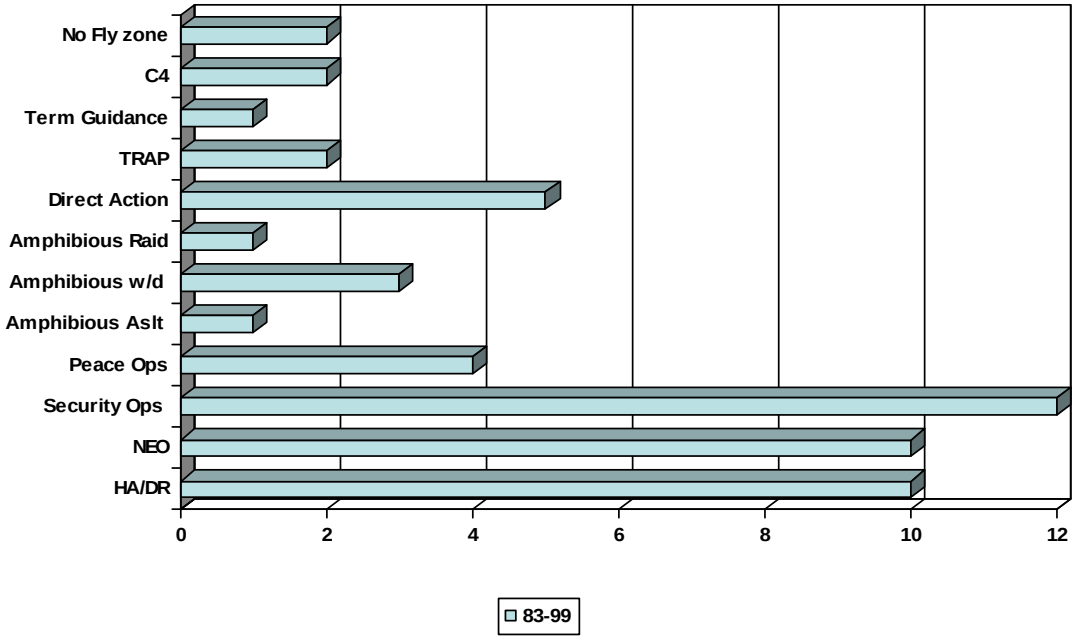
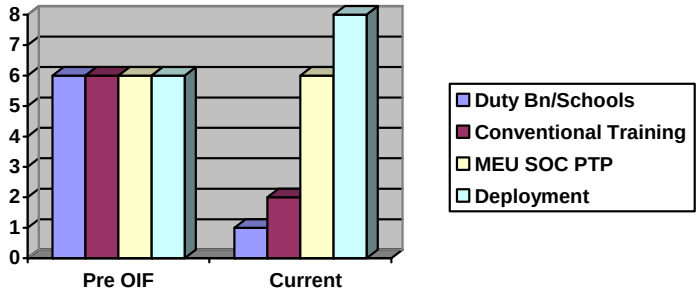


Figure 1-1[68]

[68] (U) Dr James North, Center of Naval Analysis. "Appendix B: MEU (SOC) operations from 1984 on" UNCLASSIFIED appendix in SECRET report *15th MEU Operations in Afghanistan: Reconstruction and Analysis* (July 20002): 101-104. The chart was derived from information found in Annex B which is unclassified. In addition, although the chart is correct in identifying the umber of times MEU's Participated in specific operations it does not covey the duration of these operations which vary from hours (in the case of TRAP missions) to years (No fly zone enforcement).

As the majority of these crises could not have been foreseen the MEUs forward presence and adaptability were instrumental to timely execution. Crisis response is and must continue to be the hallmark of Marine Expeditionary Unit employment. Although the Marine Corps takes pride in its ability to plan and execute in uncertain situations it should make every effort to assess both the threat and potential missions in order to focus training accordingly. Flexibility and adaptability are tremendous assets however our ability to "orient" will enhance our ability to "act".[69] Uncertainty will always exist yet time is a finite resource that cannot be wasted.

In order to illustrate the criticality of focused training the changes to a battalion's lifecycle will be examined in relation to time available for training. The bars on the left half of Figure 1-2 depict the pre-Operation Iraqi Freedom II battalion lifecycle.[70] The bars on the right half of the figure represent the current lifecycle of battalions deploying with MEUs.



[69] The terms "orient" and "act" are taken from Colonel Boyd's decision making model known as the "OODA loop"

[70] Although there have been numerous deviations from the "norm" due to operational commitments the graph remains a valid representation of most Battalion Landing Teams. The numbers are supported by the author's survey results.

A battalion's lifecycle is divided into four phases. Prior to Operation Iraqi Freedom II each of the four phases was approximately six months long and reflected the Marine Corps Training concept of a "building block approach". The large-scale implications of the lifecycle will be presented in general terms.

Phase I. The Duty Battalion/Schools or the "Build up" phase commences one month after a Battalion returns from deployment. Over the course of six months the unit's manpower is significantly impacted in terms of both the number of effective personnel available for training as well as shifts in leadership billets. Training during this phase is focused on individual skills conducted either within the battalion or by sending Marines to formal schools.

Phase II. The conventional or "unit" training phase. During this period the Battalion's manpower begins to increase as Marines of all ranks report in. During this phase the focus is on "unit training" up to and including the Battalion level.

Phase III. The Pre-deployment Training Program. During this phase of training the Battalion Landing Team is formed and is integrated into the MEU training plan. During the last 4 months of the training period most BLT's will average between 7-9 days of available training time per month.[71]

Each of the three Points of Embarkation (San Diego, Moore Head City and Okinawa) offers a unique paradigm in terms of pre-deployment training. Specifically, the Pre-deployment training cycles and unit rotations create challenges and opportunities in terms of balancing the competing interests of conventional and MEU (SOC) training.

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[71] Specific PTP events are listed at www.usmc.mil/meus/meus_training. Of note, the events listed are based on an East Coast MEU but generally applies to CONUS based MEUs, the last three events are at sea periods which last between 10-17 days not including embark and debark times as well as a 2 week stand down just prior to deployment.

For nearly a decade both the 31st MEU in Okinawa and the three MEUs that depart from San Diego have been receiving BLT's from a particular Regiment (5th and 1st Marines respectively).

Both 1st and 5th Marines include four battalions within their respective organizations, which allow them to source MEUs individually. MEU's departing from Moore Head City received BLT's from each of the three 2d Marine Division Regiments (2d, 6th and 8th Marines). Each of these regiments consists of three battalions and although they have attempted to source MEUs from a single regiment the operational tempo does not support this concept.

1st Marines is stationed in Camp Pendleton California and supports the three West Coast MEUs that deploy from San Diego. Under the Pre-OIF II construct at any given time 1st Marines had operational control of two of its organic battalions while the other two were under the operational control of MEU Command Elements (one was deployed and the other was conducting its pre-deployment training). At the BLT level the battalion had six months to conduct unit level training up to and including the battalion level prior to conducting MEU specific training.

The most distinct challenge facing 1st Marines Battalions is the competing interests of conventional verses MEU (SOC) training during the PTP. While there is enough time to become proficient at battalion level conventional operations during phase II of the training cycle[72], the sustainment of these skills becomes a challenge once the PTP has begun.

[72] Author's survey 100% of respondents concurred that a conventional training phase of 6 months was ample time to gain proficiency at the battalion level. All but one of the respondents had a minimum average deployable strength of 75% per month during the conventional training phase.

The advantage of the 1st Marines' model is the opportunity to develop a solid core of individuals who posses MEU specific skills and qualifications. More importantly this model also establishes a nucleus of individuals whose familiarity with the program allows them to develop an understanding of how to optimize the time available.

Like 1st Marines, 5th Marines is stationed in Camp Pendleton and with few exceptions this Regiment forms the core of the Battalion Landing Teams that support 31st MEU in Okinawa.[73] Although their PTP commences six months prior to deployment the Battalion's mandatory MEU (SOC) events are restricted to individual and company level training courses and one month of BLT wide MEU (SOC) training provided by the Regimental Headquarters.[74]

The major challenges that evolve from this design are logistical in nature. Although their schedule allots 5th Marines' Battalion Commanders some flexibility during the PTP phase, the time is limited due to an extensive gear turn in. As the battalion flies to Okinawa a large portion of its table of equipment must be turned over with the advanced party from the returning battalion. In addition, 1/3 of the MEU's ACE is permanently stationed on Okinawa degrading the two MSEs' ability to coordinate training. Finally once the battalion arrives in Okinawa it undergoes a month of at sea training prior to the MEU's Joint Task Force Exercise (the evaluated exercise which will hopefully lead to a SOC certification).

Advantages of this system include the Battalion Commanders' flexibility to craft training during the PTP. In addition, Fifth Marines' BLT's have the advantage of

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[73] Due to operational commitments 5th Marines was unable to source the current 31st MEU deployment, but have recently committed one of its battalions to the PTP that will support the next 31st MEU deployment.

[74] First Battalion Fifth Marines Long Range Training Plan January 2000 to July 2001

maintaining the core of seasoned individuals who are familiar with the program and retain SOC specific skill sets.

As previously mentioned the 2nd Marine Division normally rotates BLT responsibilities among its three Regiments. The two key differences between battalions from Camp Lejeune and 1st Marines reside in the core individuals who remain with the unit for a second or third deployment. 1st Marines' units derive benefits throughout the training cycle in terms of familiarity. However, the greatest advantage that this nucleus of individuals provides is during the MEU (SOC) training when they can best leverage specific skills and qualifications. 2nd Marine Division Battalions obviously have a greater advantage in terms of experience in conventional training opportunities.

Aside from the logistical restraints associated with Okinawa from a BLT perspective the 5th Marines model is the best option for the following reasons:

1. This model provides the BLT commander with the greatest amount of autonomy during both the conventional and PTP phases. Having the flexibility to integrate certain aspects of MEU specific training throughout the entire year while simultaneously continuing to maintain proficiency in large-scale conventional operations during the PTP is best accomplished using the 5th Marines model.

2. Having a continuous MEU rotation like 1st Marines allows 5th Marines' BLT's to maintain a core of individuals who are familiar with the program. In addition to the unit's ability to maintain corporate knowledge, many individuals possess MEU (SOC) skill sets and qualifications that can be retained from one deployment to the next. Regardless of which model is used, the lifecycle of each unit has been compressed to the point at which the Marine Corps as an institution must prioritize MEU(SOC) METLs

Impetus for Change

"Recognizing the importance of unique special operations capabilities in prosecuting the war on global terrorism, DoD increased special operations' annual budget for fiscal 2004 from $5 billion to over $6 billion. The increase would pay for more MH-47 helicopters, according to DoD documents, and 1,900 more special operations troops."[75] Based on the current threat, the Department of Defense's emphasis on special operations (as underscored by the previous quote) and current operational tempo the Marine Corps needs to seek alternatives to the traditional MEU (SOC) program.

Both the recent MARSOC experiment and the current discussion regarding the concept of distributed operations clearly demonstrate an institutional willingness to move forward. However some immediate concerns are perhaps best addressed by looking back to the history of the MEU (SOC) program itself.

As has been previously discussed the genesis of the MEU (SOC) program coincided with General Kelly's recommendation to not contribute forces to Special Operation's Command (SOCOM). Although the Marine Corps did not contribute forces to what eventually became SOCOM, General Kelly was required to define how the Marine Corps would contribute to the nation's ability to conduct "special operations."[76]

General Kelly highlighted the fact that Marines routinely conducted both urban and amphibious operations, which were listed as "special operations." Although he would order Marines to enhance these and other capabilities; he succeeded in convincing the

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[75] Gerry J. Gilmore, "Special Operations: Force Multiplier in Anti-Terror War" American Forces Press Service, RELEASE NUMBER: 031113-01 DATE POSTED: NOVEMBER 13, 2003

[76] General Alfred M Gray. Green Letter no date specified, Subj: Marine Corps Special Operations (SO) Capabilities. Box 34 General Alfred M Gray personal collection, Gray Reserch Center, Quantico VA

political leadership that the Marine Corps would contribute by remaining outside of the SOCOM umbrella.

The Department of Defense Dictionary of Military and Associated Terms delineates the difference between special and conventional operations as follows: "Special operations differ from conventional operations in degree of physical and political risk, operational techniques, mode of employment, independence from friendly support and dependence on detailed operational intelligence and indigenous assets."[77] There is no definition for "special operations capable" listed in this publication. In order to ensure that Combatant Commands have a clear understanding of not only the terminology but more importantly the capabilities of "special operations capable forces" the Marine Corps needs to include joint forces in the special operations capable certification process. While the actual certification may remain within the service, the inclusion of individuals from other services as observers, controllers or possibly instructors would enhance the programs status. In addition the program itself would also benefit from well-educated objective feedback.

Doctrine

The Department of Defense defines doctrine as the "Fundamental principles by which the military forces or elements there of guide their actions in support of national objectives. It is authoritative but requires judgment in application."[78] According to MCDP 1 the driving force behind all Marine Corps doctrine is warfighting. "Current and emerging concepts such as operational maneuver from the sea derive their doctrinal

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[77] Joint Chiefs of Staff, Joint Pub 1-02 *Department of Defense Dictionary of Military and Associated Terms* (Washington DC: 12 April 2001 (As Amended Through 30 November 2004) 495

[78] JCS, Joint Pub 1-02, 165

foundation from the philosophy contained in Warfighting."[79] The warfighting philosophy has clearly made an impact on the Marine Corps as an institution in terms of how Marines think and execute.

The link between philosophy and action is where theory is transformed into specific executable orders. Like any concept the words themselves may be memorized and recited but the true difficulty lies is in its application. For decades Marine Corps Tactical Exercise Employment Plans (TEEP) and Letters of Instruction have been updated by replacing dates and units just prior to mass production. The ability to "cut and paste" often detracts from our ability to think. In addition, while the orders themselves may be kept to a manageable size the scope of information available within the references alone can be overwhelming. The most recently published unclassified Letter Of Instruction forming the 13th MEU consists of 28 pages reinforced by 39 references.[80] Unfortunately advances in information technology alone do little to enhance the overall efficiency of the fighting force.[81]

All too often LOIs regurgitates standardized task organizations and list standard METLs without any regard for the world situation. The MEU (SOC)'s "evolution" since its inception has failed to preserve some of the original tenets of the visionaries who conceived the program.

The Marine Corps Orders that apply to MEU (SOC) training can itself create confusion. "The primary objective of the PTP is the systematic attainment of the operational capabilities required for SOC certification. The Supported Unified Combatant

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[79] Washington DC Marine Corps Doctrinal Publication (MCDP) 1 forward General Charles Krulak USMC

[80] I Marine Expeditionary Force Letter of Instruction For 13th MEU Deployment 05-1 Oct 2004

[81] There has been considerable progress made recently in terms of training changing scenarios which will be addressed in another section.

Commander's USMC Component Commander receives guidance concerning unique theater requirements. This guidance is passed to the USMC Component Commander of the Supporting Unified Combatant Commander who provides the MEU; to the MEF Commander; and subsequently to the respective MEU Commander who then develops the MEU Mission Training Plan (MTP)."[82]

In a survey recently conducted by the author only 10% of all respondents indicated that they had an understanding of either a component or theater level headquarters' concept of employment for the MEU. 88% of those polled likewise agreed that pre-deployment training (directed by higher headquarters) were based on standard operating procedures vice an assessment of probable missions.[83]

Either the PTP's focus is to achieve a sufficient level of proficiency in order to attain a certification or it is focused to provide the Combatant Commander with a force that meets his specific requirements. Without knowing the purpose the task is seldom properly achieved.

Planning

The ability to conduct rapid planning has been one of the strongest aspects of the MEU (SOC) program. The Rapid Response Planning Process quickly nullifies most of the friction associated with amphibious operations. However, any inefficiency removed from the process will allow more time for junior Marines to prepare and a greater number of senior Marines to supervise.

The Expeditionary Warfare Training Groups on both the East and West Coast conduct formal training for all MEU and Major Subordinate Element (MSE) staffs.

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[82] Marine Corps Order 3502.3A Marine Expeditionary Unit (Special Operations Capable) Predeployment Training Program (MEU (SOC) PTP) 10 Jan 01. 3

[83] The results of the author's survey are found in enclosure (1).

Specifically the training group instructors teach how to conduct the rapid response planning. In accordance with the Rapid Response Planning Process (R2P2) the MEU Commander appoints one of his Major Subordinate Element Commanders as the "Mission Commander" during mission analysis. The duly appointed "Mission Commander" in turn develops the plan for the remainder of the process.[84]

This model makes sense in terms of preparing all staffs for the likelihood of conducting multiple missions simultaneously, and when executing small-scale missions i.e. company size raids. However this technique should not be the primary course of action for the following reasons:

1. By not assuming this role the MEU Commander unnecessarily creates a potential gap between himself and the planning cell (which is primarily comprised of the MSE's battle staff).
2. This option eliminates the most senior and experienced staff from time sensitive detailed planning.
3. The MSE commander normally defaults to developing COA's within his functional area of expertise. For example, instead of choosing an aviation strike as a viable COA for a destruction mission the BLT commander's natural tendency (as well as the tendency of the MEU commander who appointed him) is to produce three COA's that rely on his forces as the main effort.
4. While this may be the preferred method in peacetime, MEU Commanders and their staffs will undoubtedly assume the lead role in developing plans that will be executed in an operational environment.

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[84] U.S. Marine Corps Reference Publication (MCRP) 5-1A *Doctrinal References for Expeditionary for Expeditionary Maneuver Warfare* (Washington, DC: Department of the Navy, September 2002) 69.

5. In theory confirmation briefs could be abbreviated allowing more time for supervised rehearsals and brief backs.

Although current MEU (SOC) doctrine facilitates mission accomplishment in the near term, the mission commander concept should not apply to large-scale missions such as Noncombatant Evacuation Operations or Humanitarian Assistance Operations.

Organization

As it was originally conceived the MEU would be task organized according to the situation. "There is no 'notional' augmentation package. Both Force Commanders are free to tailor their MAU (SOC) structure to reflect geographical, political and threat dissimilarities."[85]

This concept is reinforced by both the lack of a standard Marine Expeditionary Brigade as well as current MAGTF doctrine. "MAGTFs are task organizations consisting of ground, aviation, combat service support, and command elements. They have no standard structure, but rather are constituted as appropriate for the specific situation."[86]

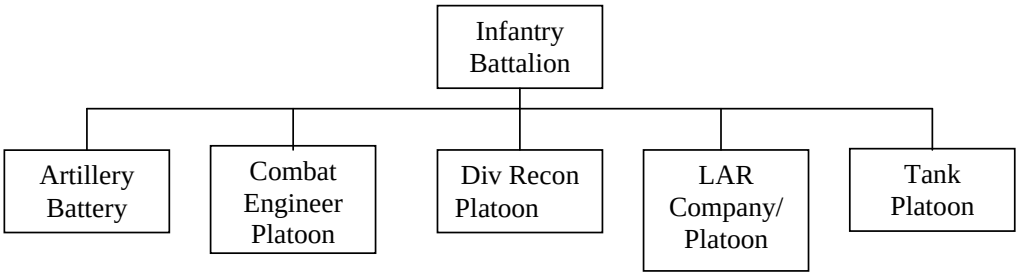
Yet, BLTs have continued to deploy with the same assets that were fielded prior to September 11th 2001. (One present exception is BLT 1/1 which is currently deployed with a Light Armored Reconnaissance platoon as opposed to a company due to non-availability).

The standard task organization of both East and West Coast Battalion Landing Teams are depicted in figure F-03. The BLT that deploys from Okinawa does not have a

[85] General Alfred M. Gray Green Letter, issued by the General prior to 1987 Box #34 Gray Research Center Historical Archives (letter is not dated but can be mentions future events of 1987 within the context)
[86] Marine Corps Doctrinal Publication (MCDP) 1 p 55

dedicated tank platoon but otherwise mirrors the BLTs that depart from the continental United States.[87]

BLT Table of Organization



As previously discussed in the doctrine segment, the MEU (SOC) program is designed either to obtain a certification or to address the specific concerns of supported Combatant Commanders. Obviously there are constraints in terms of resources and physical space but the "standard package" is not always the correct answer.

Training

"The Marine Corps' philosophy of training is derived from the mandate of the institution: To provide combat-ready units to the Nation. As such, training has been and will be viewed as a professional and moral imperative."[88]

The Marine Corps as an institution has been reluctant to officially alter its standard pre-deployment training program in spite of nearly a 50% decrease in available training time. Although some units have been given the flexibility to focus on less traditional PTP events there has been no formal action taken to modify the status quo. As

[87] Both East and West Coast LAR attachments have been affected by the current operational tempo and vary in size from company to platoon strength units.
[88] MCO P3500.7Marine Corps Ground Training and Readiness (T&R) Program p 1-3. 7 August, 2002

long as the special operations capable certification METL remains unchanged, pre-deployment training plans will predictably remain constant.

"Marine Corps training programs are based on wartime requirements. Units cannot achieve and sustain proficiency on every possible training task. Therefore, we identify the things a unit must do to accomplish its wartime mission, then, focus our training on these essential tasks. This is achieved via a METL."[89] The previous quotation reiterates the requirement for a METL derived from a Commander's Battlefield Area Evaluation. Ultimately the reduced time available for training when combined with a more clearly defined threat should result in a commensurate refinement of mission essential tasks based on the CBAE.

The "SOC" designator was clearly seen as "additive" and most would argue a misnomer without solid infantry skills. Although Marine Expeditionary Force Letters of Instruction had previously required units to pass a MCCRE prior to participating in the PTP the current operating tempo prohibits this from occurring.[90] To continue to assign units to the MEU six months prior to deployment makes absolute sense in terms of fiscal concerns and the development of a personal relationships. However not a single additive capability should be considered until units are proficient in basic skills.

"We cannot be everything to everybody, even when provided with larger budgets, and we must maintain a clear resolve to provide the best deterrence and combat capability possible."[91] Taken from a paper written 20 years ago these words underscore the need to remain focused on core capabilities.

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[89] MCRP 3-0B p 1-3 How to Conduct Training 25 November, 1996
[90] I Marine Expeditionary Force, Subject 13th Marine Expeditionary Unit Letter of Instruction 4 Oct 2004
[91] Major James N Mattis USMC Amphibious Raids: An Historical Imperative For Today's Marines CSC 1985

"A raid may be conducted as the main or supporting effort to evacuate or recover personnel and/or material. Such raids support noncombatant evacuation operations (NEOs), tactical recovery of aircraft and personnel and in-extremis recovery."[92] Today the amphibious raid is the core capability emphasized in the MEU (SOC) training. Like patrolling for small units, the elements of raid planning and execution are complementary to a variety of missions. The integration of multiple assets in a time sensitive environment, Navy and Marine Corps coordination in terms of flight deck/well deck and fire support planning; are but a few examples of the functions exercised by raid missions that have universal application in expeditionary warfare.

General Waldhauser, the former commander of both an East Coast BLT as well as the 15th MEU (SOC), reinforced this view in a recent interview, "The two fundamentals of the MEU (SOC) program are its rapid response and the amphibious raid. All of the precision movements that require teamwork and coordination that I think makes the MEU a better organization."[93]

The amphibious raid remains one of the key elements of the MEU (SOC) however it has not evolved since the program was conceived in terms of its mission profile. During the PTP, raids are almost uniformly executed as company sized evolutions and aside from the MSPF few if any are conducted in an urban setting. Moreover, the current structure of the PTP does not require the BLT to conduct a single live-fire raid. The only live-fire required of BLT units (aside from snipers in support of

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[92] Washington DC Marine Corps Warfighting Publication, *Raid Operations* p 11

[93] Interview conducted with BGen Walhauser at the Marine Corps Warfighting Laboratory on December 2004

MSPF) is the Supporting Arms Coordination Exercise, which does not employ direct fire weapons.[94]

While current doctrine offers conceptual guidance in terms of how to conduct a raid most of the historical examples hardly resemble the realities of a rapid response capability. There is much to be gleaned from the Son Tay and Fort Eben Emael operations; however raids that have been conducted on a more constrained timeline would offer more fitting examples.

"The success or failure of the whole operation depends on the quality of rehearsals conducted before the operation, and every conceivable effort to achieve realism enhances the probability of success. Drills progress in scope from terrain model walk-throughs to full-speed live fire rehearsals." [95] While reinforcing the importance of rehearsals this particular quotation has been cited by junior Marines to question the validity of the 6-hour response. Although the publication has an annex dedicated to rapid response it reads more like a justification than an alternative concept. While the six-hour window provides time for concurrent rehearsals every company commander that has been through the rigors of cross decking to and from smaller ships will testify to the fact that they seldom have the opportunity to witness let alone lead rehearsals.

An alternative model that capitalizes on the MAGTF's strengths would be a more realistic approach based on capabilities and recent history. A combined arms BLT (-) raid force employing speed and violence of action vice stealth and surgical shooting should be the primary method of execution.

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[94] The author confirmed that the SOC certification process does not require the BLT to conduct any live fire missions with both I and II MEF. (The only exceptions are as listed: during SACEX and in support of MSPF)

[95] Washington DC Marine Corps Warfighting Publication 3-43.1 *Raid Operations* p 5-4

Efficiency and realism dictate that the raid paradigm be based on the employment of a BLT (-). Recent historical examples demonstrate that even special forces units employ robust forces at least in terms of pre-positioned reserves and the command presence to implement them. Based solely on unclassified information a company sized raid force seems unrealistic, unless a target is completely isolated in which case other kinetic means in conjunction with a small force for verification might be more practical.

Recent historical examples provide a more realistic profile of the types of raids MEU (SOC) units will likely execute. In each of the following examples the concept of operations varies in terms of the number of elements involved, timing, or means of insert/extraction yet each was comprised of the equivalent of a Battalion minus.

On 22 July 2003 Uday and Qusay Hussein were killed during a raid on a house in Mosul, as a result of intelligence gained one day prior to the assault. Iraqi Police help cordon off the objective, Kiowa helicopters provide fire support, 200 soldiers from the 101st Airborne Division and Special Forces conducted the assault.[96]

Saddam Hussein was captured by U.S. military forces on 13 December, 2003 based on intelligence received earlier that same day. 600 troops from the US 4th Infantry Division and Special operations forces participated in the operation.[97]

On 20 October, 2001 U.S Special Forces conducted the first ground action in Afghanistan since the tragedy of 11 September, 2001. "Just hours after the mission ended, the Pentagon announced that hundreds of Army Rangers had parachuted onto a

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[96] "U.S. Military details demise of Hussein's sons". Wednesday, July 23, 2003 Posted: 11:35 AM EDT (1535 GMT) *CNN.com World"* www.cnn.com/2003/WORLD/meast/07/23/fatal.firefight/" January 17 2005

[97] "How Saddam Hussein was captured BBC News Online looks at how the operation to capture former Iraqi President Saddam Hussein unfolded". *BBC News UK edition* http://news.bbc.co.uk/1/hi/world/middle_east/3317881.stm . January 17 2005

military airfield about 80 miles south of Kandahar while a helicopter raid hit a Taliban compound at the edge of the city. Dramatic videotape of the airborne assault was broadcast."[98]

While the increased size of a raid force may create some concern, the shift from agrarian or desert environments to an urban focus should come as no surprise. A United Nations Study indicates that migration to urban centers will continue to increase over the next few years. "By 2008 more than half of the world's population is expected to be living in urban areas and by 2030, more than three fifths of the world's population will be living in cities.[99]

Material

MEU (SOC) units are well supported in terms of specialized equipment, ammunition and expendable items. However the maritime nature of the MEU restricts the amount of equipment that can be embarked. In addition the ships must be loaded in accordance with amphibious doctrine. "Amphibious operations follow a well-defined pattern, sequence of events, or activities. The general sequence is a succession of phases which may overlap in time, but occur in the following sequence: planning, embarkation, rehearsal, movement, and assault (PERMA)."[100]

PERMA again underscores the need for the Commander to make an assessment of probable missions. This assessment in turn impacts what equipment is embarked and how it is loaded. Given the space restrictions of amphibious ships, some of the MEU's

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[98] Thom Shaker "Conduct of War Is Redefined by Success of Special Forces" http://64.233.161.104/search?q=cache:Yc6AFdEXEcJ:courses.albion.edu/Archived_Spring2002/ This article appeared in the New York Times 21 January 2002.

[99] UNITED NATIONS CENTRE FOR HUMAN SETTLEMENTS, 9 February 2000

[100] Principles of Amphibious Operations Student Handout, The Basic School Marine Corps Combat Development Command Quantico, Virginia 22134-5019 p6

equipment will not be embarked and what is embarked will normally be restricted to the order of "first on last off".[101]

Lack of mobility once ashore is an inherent challenge to every MEU. "Ground mobility is a significant shortfall." [102] This lack of mobility is having an impact on Marines involved in the present conflict in Afghanistan; moreover it has caused Marine Commanders to assume the risk of acquiring foreign vehicles in order to execute.[103] "For two weeks, moving exclusively in HMMWVs and locally procured Toyota Hi-Luxs and Land Rovers, the BLT engaged Taliban forces eight times."

Unfortunately the only solution to this dilemma is a material one. Within the BLT the largest footprint in terms of non-vehicular assets is the artillery battery. The Marine Corps has identified a 120mm mortar "expeditionary fire support system" that has a smaller footprint than a 155 battery. Commanders must weigh the requirement for long range surface fires beyond the range of the 120mm mortar against the embarkation of additional vehicles.

Embarking the EFSS vice the entire 155 battery would enhance the BLT's mobility. However a necessary consideration is the artillery battery's versatility, which has led to its employment as a maneuver element both in training and operations.

In order to properly mitigate the lack of ground mobility in the current structure commanders need to have the authority to properly organize and equip BLTs according to their CBAE. A lack of ground mobility is a significant shortfall that limits a unit's capabilities and necessarily restricts a higher headquarters' proclivity to employ a MEU.

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101 Interview with Colonel Lowe (former Commander of the 31st MEU) October 2004

102 Interview with BGen Waldhauser November 2004

103 McKenzie Colonel Kenneth F., Major Roberta L. Shea, and Major Christopher Phelps, U.S. Marine Corps "Marines Deliver in Mountain Storm" Proceedings, November 2004

Leader Development

Language and cultural training should be interwoven into formal PME, including both emersion training as well as sustainment in the form of correspondence courses. Incorporating areas of particular interest to the MARFOR commander into pre-deployment training would allow unit commanders to focus on a specific region throughout the training cycle. In addition the Marine Corps should include foreign language training as part of the core curriculum for Marine option Naval Academy and NROTC midshipmen.[104]

The Marine Corps is teeming with ideas and concepts relating to leadership theory, techniques and procedures. Leader development lies in fundamental Marine Corps traits and principles, which are taught to every Marine either at one of the recruit depots or in Quantico. LtCol B.P. McCoy summarizes the essentials of combat leadership in his article: 'Brilliance in the Basics' and Other Expectations of Combat Leaders.[105] The fundamentals of sound leadership are timeless; as relevant on the modern battlefield as they have been for the last two centuries. What can be improved however is our ability to broaden the perspective of our young leaders in terms of exposing them to a new decision making models and free play training exercises that incorporate cultural overtones.

[104] Waivers could be approved on a case by case basis, in order to adjust for those lacking language aptitude or for those individuals whose concentration is not flexible enough to accommodate language training (Engineering or Math majors). In addition the Marine Corps should seek out individuals that possess exceptional cultural or language skills by acknowledging that such skills will receive special consideration during the application process.

[105] McCoy, BP LtCol USMC 'Brilliance in the Basics' and Other Expectations of Combat Leaders Marine Corps Gazette September 2004, p 50-52

If the Marine Corps' Distributed Operations Experiment validates the proposed concept the technical training and level of responsibility we normally afford junior leaders will need to expand exponentially. However prior to any enhanced instruction the Marine Corps needs to ensure that operational tempo supports additional training requirements. The size of the infantry T&R manual underscores the requirement for prioritization. In the fog and friction of combat proficiency rather than familiarity will be the key to success.

The average Marine not only needs to have the basic battle drills and continuing actions engrained through repetition but he has a growing arsenal of advanced communications, night vision equipment, optical sights and martial arts techniques all of which require training. Leader development in terms of enhancing trust tactics and decision making abilities can commence with an NCO "training priorities" symposium[106].

Personnel

> The fill-window is the period during which the majority of Marines joined the unit prior to deployment--probably 90 days before a UDP or 180 days before a MEU. The corresponding EAS-window for this cohort of Marines will occur approximately 42 months later (the usable life of an infantry Marine).The fill-window for their replacements should be scheduled to coincide with this EAS window.[107]

The preceding quote is reflects the Marine Corps' staffing policy prior to Operation Iraqi Freedom. Currently the operational tempo among all infantry battalions

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[106] The attendees would include veterans of the latest conflicts, with the nucleus being made up of Marine NCO's. NCO's from other services, Senior Enlisted Marines and officers with combat experience and training expertise would make up the remainder. Marine Corps Combat Development Command should sponsor the event and provide a read ahead for all participants that would include clearly defined objectives including a proposed list of unit METLs and specific NCO capabilities.

[107] Marine Corps Order 3500.28 Marine Corps Unit Cohesion Program Standard Operating Procedures 19 May 1999 , Enclosure (2) Synchronization model p. 2

is so high that BLT fill units are closer to 90 days prior to deployment. The end result of any personnel shortfall is a lack of training time available which creates more of a dilemma for leaders attempting to gain and maintain proficiency across a wide spectrum of tactical tasks while attempting to maintain administrative and medical readiness.

As previously discussed pending the Distributed Operations experiment a need to provide a significant portion of enhanced training may be necessary for infantry Marines. As an institution the Marine Corps must jealously guard all available training time. During peace time the tendency to look to infantry battalions as a standing labor pool for Force Protection, Fleet Assistance Programs and Camp Assistance Programs may have seemed like a low risk cost saving measure. Now that the country is at war it is time to rid the Marine Corps of that mentality. The Marine Corps needs to civilianize as many non-deploying jobs as possible, and send non-deployable Marines to supporting establishments.

Likewise the Marine Corps should purge itself of filling ship's company requirements with Marines that are assigned to the MSE's. If the Navy cannot fulfill of the shipboard requirements then the Corps needs to assign civilians or limited duty Marines to those billets. If end strength limits prohibit this the Corps should be looking to non deploying entities in order to reassign Marines.

The quality of the young Marines currently serving is phenomenal, however if language training becomes more prevalent in certain MOS's the Armed Services Vocational Aptitude Test Battery (ASVAB) should include a language aptitude test section.

Facilities

With a renewed emphasis on live fire in general and urban operations in particular the Marine Corps' establishment of a large scale MOUT facility in 29 Palms is a definitive step in the right direction. Exactly how expansive this facility will be is unknown however the minimum capabilities should include the following:

1. The facility should be large enough for a Battalion (-) sized operation. At a minimum the range should facilitate a platoon size unit (reinforced with medium machine guns) conducts a live-fire assault on two adjacent structures.
2. The facility should incorporate live fire combined arms (rotary wing close air support in conjunction with 81mm mortar support at a minimum). Optimally the range would facilitate combined arms within the maneuver space, if this is not feasible then the two ranges should be adjacent to one another in order to provide more realistic training.

Once the details of the urban facility have been established there will likely be a requirement to increase certain types of ammunition within the BLT and ACE training allocations. Specifically infantry battalions may require additional inert mortar ammunition. In addition the cost of sending east coast units to this facility may be prohibitive in terms of both fiscal and time constraints. However, if this training is somehow incorporated into the normal Combined Arms Exercise program fiscal constraints become more manageable. If the 5th Marines/31st MEU model is adopted the aspect of time becomes more manageable as well.

Conclusions and Recommendations

Lifecycle comparison:

While none of the three systems is optimal it would appear that the 5th Marines model provides the advantages of experience and flexibility. In addition to maintaining its nucleus of seasoned individuals this option affords the BLT Commander the greatest amount of flexibility during pre-deployment training. The 31st MEU seems to have devised an extremely efficient system for integrating its Major Subordinate Elements (only requiring approximately 6 weeks of training prior to its SOC evaluation).[108]

Doctrine:

If the primary aim of the pre-deployment training plan is to support the Combatant Commander then perhaps a technique would be to provide the Combatant Commander with a "menu of options." Each of the three MEF's could be tasked with developing training timelines corresponding to specific missions with MCCDC as the final arbitrator. This technique would be extremely useful during periods of increased operational tempo. Instead of having force providers decide which missions to focus on, allow the warfighting CINC to shape the training in accordance with his CBAE.

Organization:

Understanding that as a seafaring forward deployed unit MEU (SOC)s must be prepared to respond to multiple contingencies BLT Commanders should have some flexibility with regard to how their units are organized. Sacrificing CRRC's and perhaps M1A1's for organic lift should be METT-TSL dependant vice standard operating procedure. Under certain circumstances a more profound option would be to form the nucleus of the BLT around an LAR battalion, reinforced with an infantry company. This option is not sustainable due to the limited number of LAR battalions in the Marine Corps however it could provide Combatant Commander's with a unique capability for a specific mission.

[108] 31st MEU Command Chronologies 1998-2001

Training:

"Commanders at each echelon must allot subordinates sufficient time and freedom to conduct the training necessary to achieve proficiency at their levels. They must ensure that higher-level demands do not deny subordinates adequate opportunities for autonomous unit training."[109]

Training is perhaps the most contentious aspect of the MEU (SOC) program, yet as with all fighting organizations it is the basis for success in combat. In order to strike a balance between proficiency and flexibility in a time sensitive environment the Marine Corps must reestablish the primacy of the commander's battlefield area assessment in relation to the MEU (SOC) METL. As previously discussed SOC missions are additive and clearly secondary to basic warfighting skills. Training should be prioritized and structured to reflect probability in terms of likely task organizations and operating environments. "Basic individual skills are an essential foundation for combat effectiveness and must receive heavy emphasis. All Marines, regardless of occupational specialty, will be trained in basic combat skills."[110]

BLT training during the PTP has become more of a challenge within the Expeditionary Strike Group (ESG) construct. Coinciding with the ESG's increase in assets are additional training requirements which lead to less flexibility during at sea training. During a normal two week at sea period companies within the BLT normally

[109] Marine Corps Doctrinal Publication 1 p60
[110] Marine Corps Doctrinal Publication 1 p 59-p60

execute two missions which amount to roughly two to three days ashore. MEUs attempt to minimize at sea time for BLTs in order to maximize training ashore however this effort becomes more complex with the ESG's additional training requirements.

The complexities of the ESG, operational tempo and a more clearly defined battlespace underscore the requirement to become more efficient during the PTP. While the creativity, small unit leadership and the dogged determination of young Marines have overcome training shortfalls strict adherence to the training fundamentals listed below will enhance overall efficiency.

The Marine Corps' T&R Concept is built upon the following tenets:
- Building block approach to training.
- Focus on expected combat missions.
- Focus on Unit Core Capabilities and Individual Core Skills.
- Organization of tasks into executable events.
- Sustainment of training[111]

Material:

The lack of ground mobility can only be mitigated by making difficult choices based on a thorough CBAE. Within the BLT the artillery battery, tanks and CRRCs are normally targeted, however this is a MEU wide problem that can be addressed at the MAGTF level.

Leadership:

Emphasizing cultural and language training as well as decision making exercises will enhance both near and long term performance of leaders at every level. Such training will be of particular significance to young officers and NCO's conducting either Distributed Operations and/or missions associated with Foreign Internal Defense.

Personnel:

[111] MCO P3500.7Marine Corps Ground Training and Readiness (T&R) Program p 1-3. 7 August, 2002

Culturally the Marine Corps needs to experience an overt recognition of the time required to properly train Marine riflemen. While Recruit Depots and Schools of Infantry produce superbly trained basic Marines the young NCOs and officers must have time to enhance and synchronize these skills. More importantly these Marines need time to develop relationships-otherwise the concepts of trust tactics, inherit communications and brotherhood mere slogans.

Facilities:

The Marine Corps is committed to developing a large scale urban training facility located in 29 Palms which will have a significant impact on future BLTs. However commanders need to prepare and sustain their units at their home stations. While the 29 Palms training center will certainly provide a tremendous training experience, unless existing MOUT facilities at Camps Lejeune and Pendleton and Marine Corps Base Hawaii; receive upgrades urban skill sets will diminish.

Chapter 6

Aviation Combat Element

"Today [aviation] is the dominant factor in war. It may not win a war by itself alone, but without it no major war can be won."[112]

–Adm Arthur Radford

Introduction

When discussing the relevancy of the Marine Expeditionary Unit (MEU), there is little argument as to the successes achieved by the Aviation Combat Element (ACE) and its ability to act as a force multiplier. Providing operational flexibility through speed, mobility, and maneuver, the ACE enhances MEU's the ability to deliver fires, facilitate command and control, sustain combat power, and collect intelligence.[113] Whether it is conducting Close Air Support (CAS) for Marines on the front line, inserting the Ground Combat Element (GCE) over 400 miles inland, or conducting the Tactical Recovery of Aircraft and Personnel (TRAP) of a downed F-16 pilot, the ACE continually demonstrates why the 28th Commandant, General P.X. Kelly, labeled the integration of Marine Air as the first of three pillars upon which the Marine Amphibious Unit (Special Operations Capable) (MAU (SOC)) concept would succeed.[114]

Yet the MEU ACE has become a victim of its own success. Over the last twenty years, as the Marine Corps' concept of a Forward Deployed Marine Air Ground Task Force (MAGTF) has evolved from the MAU to the MEU (SOC); progressing doctrinally from a World War II / Korean War amphibious frame of mind to Force Reduction,

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[112] United States Marine Corps, Marine Corps Warfighting Publication (MCWP) 3-2, *Aviation Operations* (Washington, DC: U.S. Government, 9 May 2000), 1-1.
[113] MCWP 3-2, 1-1.
[114] Harry M. Murdock, "MAU (SOC) A Powerful Maritime Force," *Marine Corps Gazette*, Aug 1987, 67. The other two pillars being integration with the Navy and a critical demonstration of the MAU's capabilities prior to earning the SOC qual.

Transformation and the Expeditionary Maneuver Warfare (EMW) mindset of today – the expectations of the ACE and its capabilities have changed dramatically, while the force that provides these capabilities has changed very little. The end result is an old force working in a new environment, which has been stretched thin and pushed to its limits. Essentially, today's ACE finds itself attempting to accomplish tomorrow's mission with yesterday's aircraft.

This is not a new problem for the Marine Corps, which has been working towards a solution under the guise of the MV-22, the Yankee series UH-1, and the Zulu series AH-1 for the past decade. These programs, however, are not tentatively scheduled to hit the fleet for an additional five to ten years[115], leaving ACE and MEU Commanders to carry on in the Marine Corps tradition of "improvise, overcome and adapt." But is this enough? As the MEU (SOC) program enters the 21st century with a global war on terrorism, on going conflicts in Iraq and Afghanistan, and numerous other potential hotspots around the globe, is the ACE, as it is currently configured, appropriately organized and properly trained to support the MEU effectively?

This chapter will address this question by looking at several of the issues and challenges the ACE faces while attempting to fill the gap. It will do this by looking first at current Marine Corps / Navy doctrine and the complications imposed on the abilities of the ACE. Second, in order to provide a background for analysis, it will look at the historical and current organization and capabilities of the ACE. Third, it will look at the training available and the quality of training available, both internal and external to the

[115] Marine Corps Bulletin (MCBul) 1325. *The Marine Corps Aviation Plan for 2004,* (Washington D.C.: Headquarters, U.S. Marine Corps, 15 Jun 04), 19.

ACE. Finally, it will provide analysis and concepts for restructuring the ACE and its missions.

Doctrine

Expeditionary Maneuver Warfare

Since its inception, the basic mission of the MEU has been to promote peace and stability through the presence of force and projection of power. It is a constant forward presence that is able to rapidly provide humanitarian assistance, force protection, conduct noncombatant evacuation operations (NEO's), deter potential enemies, defuse volatile situations, and minimize human suffering, while acting as on-call enabler for follow-on Marine or joint forces. The MEU concept has been fairly successful, due in large part to its emphasis on mobility, speed, fire-power, and tactical lift. This emphasis has enabled the creation a self-sustained combined-arms force that is strategically agile and tactically flexible, with enhanced operational reach – the core elements of Expeditionary Maneuver Warfare (EMW)[116].

Expeditionary Maneuver Warfare is further defined by the operational concept of Operational Maneuver from the Sea (OMFTS). As the name would imply, Operational Maneuver from the Sea focuses on determining enemy centers of gravity and using the mobility provided by naval power to avoid enemy strengths and strike where the enemy is weak. In effect, using time and space to gain the advantage, and dealing a decisive blow to the enemy.[117]

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[116] United States Marine Corps Pamphlet, *Expeditionary Maneuver Warfare* (Washington D.C. Headquarters U.S. Marine Corps, 10 November 2001), 1-6.
[117] Strategic Studies Group – 1988, "Framing OMFTS: An Evolution to a Revolution", *Marine Corps Gazette*, January 1999, 72.

A significant corollary to Operational Maneuver from the Sea is the concept of Ship-to-Objective Maneuver (STOM). Traditionally, amphibious operations have involved three phases: establishing a beachhead, movement of troops and supplies from ship-to-shore, and subsequent operations ashore. The requirement for a beachhead forced planners to focus more on the tactical and technical problems of getting forces ashore than on the enemy. Once a beachhead was secured, the ship-to-shore movement of troops, equipment and supplies would begin. Only once sufficient combat power had been established ashore could forces begin their movement to the objective area and subsequent operations ashore. This buildup of combat power was time intensive and nullified any advantages of surprise or tempo the amphibious forces might have gained, as the enemy now had time to reinforce and harden his defenses. The resulting loss of tempo and surprise often forced the landing forces to plan and fight a deliberate and attritive battle to break out of the beachhead. The Ship-to-Objective Maneuver concept looks to reduce such attrition by creating an increased operational tempo and maintaining the element of surprise, by doing away with the need of an established beachhead and merging the ship-to-shore movement and the subsequent operations ashore into a single, decisive maneuver directly from the ship, over the horizon, to the objective area.[118].

The ACE's mobility, range, speed, and battlespace perspective are well suited to the elements of STOM and OMFTS warfare and will play a critical role in its success. These capabilities are what will allow a MEU commander to focus more on the enemy, show multiple threats and keep the pressure on. Though designed with the future technology and abilities of the MV-22 and the Joint Strike fighter in mind, these concepts

[118] Marine Corps Doctrinal Publication (MCDP) 3, *Expeditionary Concepts, (Washington D.C.*: Headquarters, U.S. Marine Corps, 16 April 1998), 92-93.

are being employed by the MEU ACE's of today as demonstrated by Task Force 58's 400 mile amphibious assault into Afghanistan in November of 2001.[119]

As effective as these concepts are for the MEU commander, it does extract a toll on an ACE. The focus on Expeditionary Maneuver Warfare, Operational Maneuver from the Sea, and Ship-to-Objective Maneuver has expanded the MEU's area of responsibility beyond the littorals, requiring the ACE to fly longer distances, more often. This increased tempo is difficult to maintain, especially when working in austere environments outside of the normal supply chain, with aircraft whose average age is 22 and getting older.

As a result, aviation readiness is beginning to suffer and squadrons are forced to "cannibalize" parts (removing serviceable parts from one aircraft and installing them in another to make repairs otherwise unattainable) in order to keep flying.[120] Cannibalization increases the maintenance workload of a squadron which in turn, affects troop morale and takes aircraft out of service for long periods of time, decreasing the overall availability of aircraft to the MEU.

Expeditionary Strike Group

To compliment the Marine Corps vision of Expeditionary Maneuver Warfare, the Navy has developed the Naval Global Concept of Operations. These concepts dramatically reorganize the Navy into 12 Carrier Strike Groups and 12 Expeditionary Strike groups. These groups are tasked organized to meet mission needs of joint force

[119] Fredrick McCorkle, LtGen, USMC, "Transforming Marine Aviation", *Marine Corps Gazette*, May 2000, 26
[120] Hunter Keete, "Marine Aviation Community Draws Lessons From Afghanistan", *Defense Daily*, 29 October 2002, 1.

commanders, and designed to complement other available joint assets. They are sized to the magnitude of the task at hand. The smaller of these two is the Expeditionary Strike Group (ESG) which has replaced the Amphibious Ready Group. The ESG has already been discussed at length in previous chapters.

Organization and Capabilities

Historical Organization

When first established as an element of the Marine Amphibious Unit (MAU), the ACE was to be built around a Marine Medium Helicopter Squadron (HMM), task organized to provide assault support, fixed wing and rotary wing close air support, airborne command and control and low-level, close-in air defense for the Amphibious Ready Group. It consisted of twelve CH-46E's reinforced with four CH-53D's, two CH-53E's, eight AH-1T's, two UH-1N's and 20 Redeye missiles. If the tactical situation dictated, the eight AH-1T's could be replaced or reinforced by a Marine Attack Squadron (VMA) det of six AV-8B's[121]. Typically, however, the ACE would deploy with the twelve, CH-46E's, four CH-53D's, four AH-1T's and two UH-1N's. [122] As the Marine Corps completed the transition to the CH-53E, and the AH-1W in the late 1980's, early 1990's, the standard mix was reduced to twelve CH-46E's four CH-53E's, six AH-1W's and the two UH-1N's.[123] Later, as the VMA det became a permanent structure of the

[121] Arch Ratliff, Jr., LtCol, USMC, and others, *National Command Authority Options for the Strategic Employment of Forward Deployed Marine Air Ground Task Force.* (Washington DC: The National War College, 1984), 38
[122] Frank M. Benis, *U.S. Marines in Lebanon 1982-1984*. (Washington D.C.: Headquarters, U.S. Marine Corps, 1987), 7
[123] David .S Koehr, "Updating the MEU ACE", *Marine Corps Gazette*, May 1992, 64.

ACE, the six AH-1W's were further reduced to four, and an additional UH-1N was added.[124]

The ACE Today

Though the technology has been improved, and the mission has been slightly modified, today's MEU ACE is still organized essentially the same as it was some twenty years ago. It remains a reinforced helicopter squadron, task organized to provide assault support, fixed wing and rotary wing close air support, airborne command and control and low-level, close-in air defense for the ESG vice the ARG. Though there have been some exceptions, due to specific mission requirements for the Global War on Terrorism, the basic organization of today's ACE is as follows:[125]

The Marine Medium Helicopter Squadron (HMM). As mentioned earlier, the HMM provides the core around which the remainder of the ACE is built and as such provides the majority of the ACE command element. HMM's are configured with twelve CH-46E helicopters, whose mission is to provide all-weather, day/night, night vision goggle (NVG) assault transport of combat troops, supplies, and equipment during amphibious and subsequent operations ashore. First procured in 1964, the average aircraft is 37 years old and has flown in excess of 9,000 hours[126]. The CH-46E has a combat radius of 150 miles and a max speed of 145 knots. Originally designed to carry 24 Marines, because of its age and power limitations it is now only able to carry an 9-16

[124] Roy A. Osborn, Capt, USMC, "A New Face for the ACE: Reconfiguration of the MEU ACE", *Marine Corps Gazette*, August 1995, 19.
[125] As defined by MCO 3120.B, 12-13. With the exception of where otherwise annotated, aircraft facts and figures come from the Deputy Commandant for Aviation website, URL: <http://hqinet001.hqmc.usmc.mil/AVN/>, accessed 18 January 2004.
[126] LtGen Michael A. Hough, Deputy Commandant (DC) for Aviation. "State of Marine Aviation", *Marine Corps Gazette*, May 2004, 20.

Marines with the standard 'stick'[127]. It does have the honor of having the second highest mission capable rate of all Marine Corps aircraft (second only to the F/A-18), but it requires above average maintenance man-hours per flight hour to attain[128].

The CH-46E has been scheduled for replacement by the MV-22. Though recent setbacks in the MV-22 program have delayed the transition longer than originally expected, the latest forecast is for the first HMM's commence the change to VMM's (Marine Medium Tiltrotor Squadrons) by FY 07 and the last by FY 13.

Marine Heavy Helicopter Squadron (HMH) detachment. The HMH detachment is a det of four CH-53E helicopters whose primary mission is to provide transportation of heavy equipment and supplies during the ship-to-shore movement of an amphibious assault and during subsequent operations ashore. Over the last several years, however, it has been used increasingly in the assault transport role due in large part to its exceptional range, speed and payload capability. First introduced in 1981, the average CH-53E is 17 years old. Capable of refueling in air, its range is indefinite, though can still fly up to 621 miles without refueling. Though designed for heavy lift, it is capable of carrying up to 24 Marines under normal conditions and up to 50 Marines with permission from the MEU CO and its centerline seats installed. Capable of lifting up to 16 tons in its heavy lift role, the CH-53E can also carry internal fuel bladders which can be used to refuel other aircraft in the field.

Due to its many capabilities, the CH-53E has been a high demand asset for most of the GWOT. This high tempo is beginning to take its toll on the aircraft. In June of 2004, the first CH-53E went into desert storage, because it could no longer be flown

[127] Stick – A load of troops defined by a particular serial number, who depart or board the helicopter upon landing in and LZ.
[128] Hough, 20

safely. The desert sands of Iraq and Afghanistan have slowly been eating away at the turbine blades in the engine. Current predictions are that at present rates, the Marine Corps will be out of heavy-lift helicopters by 2012. As the replacement for the CH-53E, the CH-53(R) is not due to hit the fleet until FY 2013 at the earliest, it is possible the 53 production line may have to be reopened.[129]

Marine Light Attack Squadron (HMLA) detachment. The HMLA detachment is typically configured with four AH-1W attack helicopters and two or three UH-1N utility helicopters. This detachment is responsible for providing close air support, airborne command and control, and escort.

AH-1W. The AH-1W or "Cobra" is tasked with the primary mission of providing close air support and security for forward and rear area forces, point target/anti-armor, anti-helicopter, armed escort for assault helicopters and their embarked personnel, point and limited area air defense from enemy fixed-wing aircraft, and armed and visual reconnaissance. Additionally, the Cobra provides fire support and fire support coordination to the landing force during amphibious assaults and subsequent operations ashore. First inducted in 1986, the average AH-1W is 15 years old. A capable weapons platform, it is armed with a 20MM nose mounted turreted cannon with 750 rounds; four external wing stations that can fire 2.75"/5.0" rockets and a wide variety of precision guided missiles, to include TOW/Hellfire (point target/anti-armor), Sidewinder (anti-air) and Sidearm (anti-radar). Capable of flying 147 knots, it has a range of 256 miles.

Like the CH-53E, the Cobra has been a very popular platform during the Global War on Terror. Also like the 53, the increased operational tempo has affected the number

[129] David A. Fulghum, "Send Money; Marine official says third year of combat is creating emergency in Marine aviation," *Aviation Week & Space Technology*, 14 June 2004.

of assets available. As LtGen Robert Magnus, the Deputy Commandant for Programs and Resources recently stated:

> We are topped out on Marine aviation – for tactical helicopters and heavy lift helicopters. OIF is putting stress on aviation planning for next spring....We don't have enough rotary wing for prolonged combat.....There also aren't enough Cobra helicopters, they are remanufacturing them now and upgrading the new ones, but we can't send all the helicopters for upgrades because we need the in the war and it takes two years to remanufacture them.[130]

Unlike the other helicopters in the ACE, the Cobra is still in production, with 60 new aircraft to be delivered to the fleet at a rate of five per month starting in April 05. The AH-1W is also scheduled to be replaced with the four bladed "Z" model in FY 11

UH-1N. The second oldest aircraft within the MEU ACE, the Huey was inducted into the Marine Corps in 1971. The average age of Huey's in the fleet is 31. As a utility helicopter, it has the mission of providing utility combat helicopter support to the landing force commander during ship-to-shore movement and in subsequent operations ashore. Utility combat support includes the following sub-missions: Airborne command and control, combat assault, medical evacuation, maritime special operations, Forward Air Controller (Airborne) (FAC (A)), fire support and security for forward and rear area forces, resupply, liaison, and troop transport. Though only able to fly a max range of 197 miles at 120 knots, the Huey has two systems which make it extremely valuable to the ACE and the MEU -the BRITE Star third generation Forward Looking Infrared Radar (FLIR) and laser designator, and the ASC-26 communication package. Used also in the Close Air Support and Escort roles, the UH-1N is capable of carrying a variety of different weapon systems. These include: the M240, 7.62mm machine gun, or the GAU-16, .50-caliber machine gun, or the GAU-17, 7.62mm automatic gun. All three weapons

[130] Lisa Troshinsky. "Iraqi operations straining Marine aviation, official says;" *Aerospace Daily & Defense Report*, 9 June 2004, 3.

systems are crew-served, with the GAU-2B/A also able to be controlled by the pilot in the fixed forward firing mode. The helicopter can also carry two 7-shot or 19-shot 2.75" rocket pods.

Much like the CH-46, the Huey's age is beginning to catch up to it. Already weight and power limited, the Huey has recently had a plethora of challenges to overcome. The last several years have seen the tail booms cracking due to stress, requiring inspections of the airframe after every two hours of flight time. The aircraft has also recently had problems with the mount and saddle for the GAU-17 falling apart in flight as the crew chief was firing the weapon. Fortunately for the Huey community, the UH-1N will be the first aircraft to see its replacement with the transition to the more powerful, four-blade UH-1Y model commencing in FY 08.

Marine Attack Squadron (VMA) detachment. The VMA detachment supports the ACE with five or six AV-8BII or AV-8II+ Harriers. . Combining tactical mobility, responsiveness, and flexibility, both afloat and ashore, the AV-8B provides organic close air support to the MEU. A versatile aircraft, its mission is to attack and destroy surface and air targets, to escort helicopters, and to conduct other such air operations as may be directed. Specific tasks include:

- Conduct close air support using conventional and specific weapons.
- Conduct deep air support, to include armed reconnaissance and air interdiction, using conventional and specific weapons.
- Conduct offensive and defensive anti-air warfare. This includes combat air patrol, armed escort missions, and offensive missions against enemy ground-to-air defenses, all within the capabilities of the aircraft.
- Be able to operate and deliver ordnance at night and to operate under instrument flight conditions.
- Be able to deploy for extended operations employing aerial refueling.
- Be able to deploy to and operate from carriers and other suitable seagoing platforms, advanced bases, expeditionary airfields, and remote tactical landing sites

In order to accomplish these tasks, the Harrier has seven external store stations, comprising six wing stations for AIM-9 Sidewinder and an assortment of air-to-ground weapons; external fuel tanks; AGM-65 Maverick missiles, or a Litening targeting pod. The seventh external store station is a centerline station for a DECM pod. A GAU-12 25MM six-barrel gun pod and accompanying ammunition pod can be mounted either side of centerline and has a 300 round capacity with a lead computing optical sight system (LCOSS) gunsight.

The youngest aircraft within the ACE, the AV-8BII was introduced to the Marine Corps in 1993, with the average age in the fleet being only 9 years. A subsonic aircraft, it can fly a CAS mission out to a range of 187miles and still provide 30 minutes of overhead time. If configured for an interdiction mission, its range is approximately 522 miles, though the Harrier is configured for in-flight refueling and can stay airborne indefinitely if tanker support is available.

After a rough couple of years in the late 1990's the AV-8BII has finally come into form and has been one of the Marine Corps success stories in the GWOT. Over the last 10 years, the Harrier has gone from a daytime air-ground attack platform to a night/adverse weather precision strike platform. With the AV-8BII+, the aircraft has incorporated a night attack avionics suite or the APG-65 multimode radar.[131] Though the Harrier is tentatively scheduled to be replaced by the F-35 JSF starting in FY 12, the last remanufactured AV-8B was delivered in September 2003.

Marine Aerial Refueler/Transport Squadron (VMGR) detachment. While not technically part of the ACE, as they are in direct support of the MEU and not attached to

[131] Hough, 16.

the core HMM, the VMGR detachment is configured with two KC-130 aircraft. These aircraft provides refueling services for embarked helicopters, AV-8B aircraft, and performs other support tasks (e.g., parachute operations, flare drops, cargo transportation, etc.) as required. This detachment trains with the MEU throughout the PTP, and then is on CONUS standby, prepared to deploy within 96 hours.

Marine Air Control Group (MACG). The MACG detachment is composed of a small headquarters element, an Air Support Element (ASE), a Low Altitude Defense (LAAD) section, and a Marine Air Traffic Control Team (ATC) mobile team.

Air Support Element (ASE). The ASE provides a limited Direct Air Support Center (DASC) capability that is able to provide tactical, procedural control of aircraft functions for enhanced integration of air support into the MEU (SOC) scheme of maneuver.

Low Altitude Air Defense (LAAD) Section. The LAAD section provides low level, close-in air defense for MEU/ESG air defense priorities. It accomplishes this mission through the use of two Avenger vehicles and three Stinger teams.

Marine Air Traffic Control Team (ATC) Mobile Team. Provides expeditionary ATC services to austere/remote landing sites and interface with host nation / joint ATC regarding MEU (SOC) / ACE operations.

Analysis / Conclusions

Marine Corps Priorities

Before determining whether or not the current MEU ACE configuration effectively supports the MEU, it must be determined what the Marine Corps' priorities for the MEU (SOC) are. Per *Marine Corps Strategy 21* the Marine Expeditionary Unit is

to be task-organized to provide a forward deployed presence to promote peace and stability.[132] Yet four of the seven MEU's, the 11th, the 15th, 24th and 31st, are now deployed for sustained operations ashore in Iraq. The remaining MEU's are currently stateside, with the 26th MEU still in workups while the 13th MEU just recently returned from Iraq and the 22nd MEU from operations in Afghanistan.

It would appear then, that for the moment, the Marine Corps' current priority are actions in Central Command (CENTCOM). As such the ACE as it is presently configured per MCO 3120.9B will suffice. The MEU (SOC)'s deploying to Iraq are falling in on a pre-existing command and control, logistics, and maintenance support systems that will allow the ACE to effectively support the MEU without any significant changes. For now – as mentioned earlier, the past three years of prolonged combat in the CENTCOM Area of Responsibility (AOR) has placed a heavy strain on the rotary wing community.[133] Should this trend continue, the ACE may find itself deploying with less and less assets and MEU finding itself having to rely more and more on joint / coalition air assets and UAV's.

While sustained operations ashore in Iraq may currently have the Marine Corps focus, this will not always be the case. The tenets of Operational Maneuver from the Sea are still in the Corps peripheral vision and when it has fulfilled its obligations in Iraq, those tenets will be back in focus. As the MEU (SOC)'s begin to operate under the principles of OMFTS and STOM, the configuration of the ACE will need to change.

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[132] United States Marine Corps Pamphlet, *Marine Corps Strategy 21* (Washington D.C. Headquarters U.S. Marine Corps, 3 November 2000), 3.
[133] Fulghum, 26

A new structure for the ACE

As discussed earlier, the principles of Operational Maneuver from the Sea and Ship-to-Objective Maneuver require speed, mobility, flexibility and endurance. These capabilities will act as a catalyst that will enable the MEU Commander to negotiate the obstacles presented by space and time.[134] The ACE as it is currently organized lacks these capabilities to the degree that they will be required. The ideal ACE for these concepts would be one that included the MV-22B, the CH-53(R), the AH-1Z, the UH-1Y and the F-35 JSF. But as these airframes will not be available for several years to come, the current MEU ACE needs to be reorganized in such a way that it can increase its mobility speed and endurance to a level that comes as close as possible to the ideal while paving the way for Corps transition to the next generation of aircraft.

Rather than deploying with the standard twelve CH-46's, four CH-53's, four AH-1's, four UH-1's and six AV-8's, the ACE should instead deploy with eight CH-46's, six CH-53's, six AH-1's, four UH-1's and six AV-8's for the following reasons:

Mobility. As a rule of thumb, one can typically count on 80% aircraft availability. With this figure calculated in, it comes out to seven CH-46's, five CH-53', five AH-1, 3 UH-1's and 5 AV-8's; which provides more lift than does the current mix of aircraft. This larger mix of aircraft available would allow the ACE CO to build a package that best supports the GCE, while increasing its ability to move a larger force in one wave. Having more CH-53's available also enables the ACE to better exercise the principles of Ship-to-Objective Maneuver by being able to transport and support GCE forces further inland.

[134] United States Marine Corps Pamphlet, *MAGTF Aviation and Operational Maneuver from the Sea*, (Washington D.C. Headquarters U.S. Marine Corps, 29 January 1999), 3

Flexibility. Having more assets available increases overall flexibility. For safety of flight in both combat and peacetime operations, virtually all aircraft in the ACE work in sections (flights of two) or greater, and the Cobra's as a whole work best if employed as a section. By having five Cobras available, the ACE can launch two sections of Cobras with a back-up aircraft. When combined with the Huey's ability to launch a single section with a back-up aircraft available, and launched at staggered interval, the GCE is assured of having uninterrupted fire support by a section of aircraft at all times so as to provide constant CAS to the GCE. When combined with the Mobile refueling system of the CH-53, the Cobra's ability to support OMFTS is greatly magnified.[135]

Availability of Aircraft. Some would argue that having more CH-53's and less CH-46's would increase the MEU's mobility and flexibility even more. There is no counter to this argument save that unless Sikorsky reopens the assembly line, there may not be the assets available to man the MEU ACE with any more than six aircraft.[136] The AH-1 is being increased by 60 airframes over the next year and scheduled to be replaced in six years. There should not be an issue with increasing its numbers within the ACE. As the OIF /OEF continue, however, these numbers may have to be reevaluated.

V-22 Transition. Such a mix would also facilitate a smoother transition to an ACE comprised of MV-22's; potentially saving dramatic and drastic changes in the future. Currently, the Navy's largest air capable amphibious assault ship is the Wasp Class LHD. With a flight deck 844 feet in length and 200 feet in width, it can safely support a mix of twelve CH-46E's, six AV-8B's, four CH-53E's, four AH-1W's, and four UH-1N's; or a mix of twelve CH-46E's, nine CH-53E's, and six AV-8B's; or twenty

[135] Osborn, 19-20.
[136] Lisa Troshinky, "Iraqi operations straining Marine aviation, official says;" *Aerospace Daily & Defense Report*, 9 June 2004, 3

AV-8B's and four SH-60F's.[137] To launch and recover either rotor wing or tilt rotor aircraft, the LHD has nine spots; six on the port side and three on the starboard side (two forward of the island and one aft). With aircraft embarked, however, only the six spots on the port side are typically used, as the other spots are used for parking aircraft. Known as being in the 'slash', these aircraft are parked perpendicular to the bow, approximately one to two feet apart. With a folded width of 14 feet 9 inches for the CH-46E, 27 feet 5 inches for the CH-53E, 10 feet 6 inches for the AH-1N and 9 feet 6 inches for the UH-1, the standard ACE can fit eight CH-46's, four AH-1's, three UH-1's and two MH-60's (Navy SAR) in the forward slash (the slash forward of the island), and three CH-53's and six AV-8's in the aft slash. The remaining helicopters are kept below in the hangar deck.

The folded width of the MV-22 is 18 feet 5 inches[138]. While only 2 ½ feet wider that the folded CH-46, it adds up quickly in the confined space of a ship; equating roughly to nine MV-22's for twelve CH-46's. The first MV-22 centric ACE will find themselves fairly cramped if they try to deploy with the twelve MV-22's they are currently allotted. Yet, by deploying with eight MV-22's, the ACE will still have the ability to transport more Marines to the battlefield[139] while leaving room for the additional CH-53's and H-1's.

The Navy is currently in the process of developing a replacement for the LHD, the LHA (R). The LHA(R) is being designed specifically with aircraft such as MV-22

[137] Federation of American Scientist, "LHD-1 Wasp Class," URL: <http://www.fas.org/man/dod-101/sys/ship/lhd-1.htm>, accessed 18 January 2005.
[138] All aircraft specifications downloaded from Headquarters Marine Corps Department of Aviation, 10 January 2005, URL: <http://hqinet001.hqmc.usmc.mil/AVN/>, accessed 18 January 2005.
[139] Though it has seating for 24, the CH-46 is only authorized to carry 18 Marines. Due to power requirements, however, the standard load is limited to 12 Marines. The MV-22 has demonstrated the ability to carry 24 Marines. Thus with 12 CH-46's, 144 Marines would be the most one would plan to lift. Eight MV-22's will be able to lift 184 marines.

and the F-35 JSF in mind. Though built to replace the Tarawa class LHA, the LHA(R)'s flight deck will be almost 100 feet longer and 25 feet wider than the Wasp class LHD. However, the first LHA(R) is currently not scheduled for delivery to the fleet until sometime after 2013.[140]

Using only eight MV-22's would have the added benefit of expediting the aircraft's transition to the fleet. Currently, the last HMM's are scheduled to complete the transition to the MV-22 by FY 13[141]. By reducing the required number of squadron aircraft to eight vice twelve, the transition could be complete by the end of FY 11 or early FY 12. The additional MV-22s could either then be formed into a new squadron, or as the LHA(R) came on line, reconstitute the VMM's to the original twelve.

Increase C2 Capabilities

With in the current construct of the ACE, the Command and Control mission is conducted by the UH-1N. Dubbed the C&C Huey, it facilitates command and control through the use of its ASC-26 radio suit and BRITE Star FLIR. The radio suite consist of three ARC-210 radios that allow the Mission commander, or his representative, and the Air Mission Commander (AMC) to listen to six channels simultaneously or scan up to 24. BRITE Star FLIR allows the Mission Commander and AMC to see actions in the objective area up to 10 kilometers away.

When a MEU mission is being executed, the C&C Huey will typically follow in close trail of the flight, or establish itself in a Mission Control Area (MCA) that is somewhat near the objective area. From this MCA, the mission commander and the

[140] United States Navy Fact File, "Amphibious Assault Ships LHA/LHD/LHA(R)," URL: <http://www.chinfo.navy.mil/navpalib/factfile/ships/ship-lha.html>, downloaded 18 January 2005
[141] MCO 3125,20

AMC will monitor the flights progress and attempt to maintain his situational awareness via pre-briefed execution checklist code words and through use of the FLIR. If there is a change in the enemy or friendly situation either the mission commander or AMC will issue the order to change the plan as he sees necessary.

While this system has worked fairly well thus far, it is not adequate when utilizing the concepts of OMFTS and STOM. Maneuvering to an inland objective area from over the horizon will max out the range and flight time of the Huey, leaving the Mission Commander, the AMC, the ACE Commander and the MEU CO in the dark as to how the mission is developing. If line of sight exists between the ESG and the objective area, the Huey might attempt to position itself halfway between the two to act more as a radio relay than anything else as without eyes on the objective area, neither the mission commander nor the AMC can truly control the battlespace.

What is required is an aircraft capable of flying at high altitudes for long periods of time. Ideally this aircraft would have a FLIR, Radar, and .radio suite that would allow the mission commander to control the mission from anywhere on the battlefield – something along the lines of the E-2C with the Carrier Strike Group. Unfortunately, the E-2C is not organic to the ESG, so a solution will have to be found elsewhere.

Once integrated into the fleet, the MV-22 would be an ideal platform for such a mission. It can fly up to 10,000 feet with passengers in the back, and it has an aerial refueling capability, so that if there is a tanker in the vicinity it can stay airborne for the duration of the mission. The cabin is large enough that an avionics package similar to the ASC-26 could be installed. The lack of an air-ground radar would, however, would

hinder its effectiveness. Fortunately, however, if this were an idea the Marine Corps decided to attempt, there is still plenty of time to work out the details.

An option that is available now is to use the CH-53. While not as versatile as the MV-22, it has the legs and loiter time to stay on station for most missions. The problem with the Ch-53, however, is the same as with the Huey and ultimately the MV-22 – with out the air-to-ground radar it becomes nothing more than a flying radio relay.

A final option would be to try and enlist the aid of a Navy LAMPS Mk III SH-60B Seahawk. With its radar, electronic warfare suite and the capability o data link information back to the ship, the SH-60B could provide immediate off the shelf C2. The challenge would be integrating it into MEU Construct.[142]

Conclusion

> *"As you know, you have to go to war with the Army you have, not the Army you want."*
>
> *– Donald H. Rumsfeld*[143]

Based on the principles of Expeditionary Maneuver Warfare, Operational Maneuver from the Sea, and Surface-to-Objective Maneuver, combined with the Naval Global Concepts of Operations and the capabilities of the current ACE aircraft. Today's MEU ACE is not configured to support the MEU effectively. In order to do so the ACE must be reconfigured to gain the maximum amount of mobility, flexibility and speed.

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[142] George Galdorisi, "Expeditionary Forces at the crossroads," *United Naval Institute Proceedings*, June 2001, 2.

[143] Donald H. Rumsfeld, Secretary of Defense, "Town Hall Meeting in Kuwait," remarks delivered to....8 December 2004. Download of transcript from Internet, URL: <http://www.defenselink.mil/transcripts/2004 /tr20041208-secdef1761.html>, accessed 17 January 2005.

Though there are many options for reconfiguration, a mix of eight CH-46's, six CH-53's, six AH-1's, four UH-1's and six AV-8's would appear to give the best balance to the MEU while taking into consideration current shortfalls and the integration of future assets.

EMW and it operational concepts are here to stay. These concepts rely heavily on capabilities that the ACE brings to the fight. To survive in this world it is incumbent that the ACE to make its adaptive changes early so that when the next war does come, we will go with the force we need.

CHAPTER 7

COMBAT SERVICE SUPPORT ELEMENT

Since the inception of the MEU (SOC) program in 1985, the MEU Service Support Groups (MSSGs) have participated in a multitude of real world missions while forward deployed in support of global naval forward presence policy. Traditionally, the MSSG has supported amphibious and sustained land combat operations, but has also been a major participant in peace operations, humanitarian assistance and disaster relief, and noncombatant evacuation operations (NEO). Examples range from supporting Kurds in northern Iraq in 1991 after Desert Storm to conducting food distribution convoys in Somalia during Operation Restore Hope in 1992-3. MSSGs have assisted with NEOs during Operation Sharp Edge in Liberia in 1990 and Operation Eastern Exit in Somalia in 1991. Humanitarian assistance has been almost a routine mission over the years, to include Operation Uphold Democracy in Haiti in 1994, Operation Assured Response in Liberia in 1996, and the earthquake relief efforts in Turkey in 1999. Within the past 18 months, MSSGs have deployed directly to Iraq and Afghanistan in support of U.S. Central Command for long-term land commitments to Operations Enduring Freedom and Iraqi Freedom.

What will be the nature of warfare for the MEU (SOC) and the MSSG in 2010 and beyond? What should be the MSSG's focus for the next five years in order to meet the challenges that lie ahead in the global war on terrorism? The ability and will to transform and adapt to a new style of warfare is critical to answering these questions. MSSGs have a tendency to rely heavily on what the last group did on the last

deployment. In the past, there has been a reluctance to alter tables of organization and equipment, or to introduce new training priorities that may deviate from the Special Operations Training Group (SOTG) specifications.

In 2010 and beyond, the major land campaigns in the Middle East and Central Asia will be drawing to a close or completed altogether. Marine Expeditionary Units will be involved in supporting sea-based operations directly linked to the war on terrorism, erupting crises around the globe, and multilateral exercises in the European, Pacific, and Middle Eastern regions. They will be required to deploy to and operate over lengthy lines of communication and in dangerous combat environments. Emerging crises requiring humanitarian assistance or the evacuation of American citizens from foreign embassies will still be prevalent. Most important of all, MSSGs must be ready to provide flexible and responsive combat service support to the remainder of the MAGTF.

Since the MSSGs are the most often forward-deployed combat service support (CSS) units, it is imperative they remain in a constant state of combat readiness. Training must be effective and prioritized, and continuity of personnel will increase overall capability. *No longer can MSSGs adopt a rear area mentality. They must adopt and maintain a combat mindset, or a warfighter mentality*. In Iraq specifically, combat service support Marines are exposed to enemy attack as often as infantry. Their rifleman skills must be as honed as their support skills and MOS proficiency. Logistics is a warfighting function, and *CSS personnel need to carry themselves as warfighters. Anything less is unacceptable*. Instead of stating MSSGs provide support to the warfighter, it should be said that they perform a warfighting function in support of the MAGTF. The following paragraphs will describe in detail how the MSSGs of the future

must train and change their composition in order to meet the demands of future operations.

Doctrine

According to U.S. Marine Corps orders 3502.3A and 3120.9B, the MSSG "must possess the requisite personnel, capabilities, and equipment to provide all six functional areas of combat service support (CSS) to the Marine Expeditionary Unit (MEU)."[144] These six functions are transportation, maintenance, supply, general engineering, health services, and services.

The **supply** section must at a minimum conduct deployed Class I, III, and IX support, which is rations and water, petroleum, oil, and lubricants (POL), and repair parts.

The **maintenance** section must be able to conduct operations associated with an Intermediate Maintenance Activity, which provides 3rd and 4th echelon support to itself, the command element, and the battalion landing team.

The **transportation** support section must provide helicopter support teams, conduct Landing Force Support Party operations, establish a Beach Support Area during an amphibious landing or assault, and conduct motor transport and convoy operations.

The **engineer** platoon must provide such general engineering functions as bulk potable water production, bulk fuel and water storage, utilities such as power generation, demolitions and explosive ordnance disposal, and limited vertical & horizontal construction.

[144] U.S. Marine Corps Order 3502.3A, 10 Jan 2001, Enclosure 5, 1.

The **health services** section must be able to organize a mass casualty response team and operate a beach evacuation station.

Services provided by an MSSG include military police missions, disbursing, and hazardous material and waste handling and disposal.

An MSSG must be able to support **humanitarian assistance** operations and operate an evacuation control center during **noncombatant evacuation** operations. These missions rely heavily upon skills such as transportation, materiel handling, and engineering capabilities in support of disaster relief and civic assistance.[145]

This new era of warfare being ushered in during this decade demands that all MSSG Marines excel in tactical combat environments. The basic skills of being able to shoot, move, communicate, and perform first aid are just as important as the doctrinal MSSG missions outlined above. The MSSG trains to all of these skills outlined in the Marine Corps Order 3502.3A and can perform them well in the field, but new innovations must be made in the area of expeditionary logistics in austere environments with extended lines of communication. MSSG commanders must have more reliable and effective equipment, and must be able to perform tasks cheaper and more efficiently than ever before. Training in CONUS and abroad must support these requirements.

The doctrine outlined above is sound, and should continue to be followed. All of these functions and tasks are necessary for sustainment of a Marine Expeditonary Unit. Additions are necessary for the headquarters section. *The commander and staff must be able to conduct combat service support planning and rapid response planning. Deep familiarity with the Marine Corps Planning Process is a must.* This needs to be included as a requirement. Most MSSG staffs have junior officers with relatively little experience.

[145] U.S. Marine Corps Order 3502.3A, 10 Jan 2001, Enclosure 5, 2.

They must have the foundation to perform their jobs before beginning the pre-deployment training phase. The SOTG rapid response planning course and other courses offered by the Force Service Support Groups (FSSGs) are keys to overcoming these deficiencies.

Typically, an MSSG mission statement will not include **support to the aviation combat element (ACE)**, because there is no basis in doctrine. This *needs to be added to the doctrine so that the MSSG and ACE develop a relationship that can be exploited in wartime*. The MSSG doctrine *should include a "be prepared to" set of missions in support of the ACE, which would include transportation of personnel and aviation ammunition, refueling, and re-supply of Class I (rations and water).* MSSGs should train to support the entire MAGTF, not just the Battalion Landing Team (BLT). One positive historical example that supports the previous statement was the planning for Operation Iraqi Freedom between the 1st Marine Division G-4 and Marine Wing Support Group 37. These two groups "worked to integrate forward arming and refueling point (FARP) packages into the tactical columns of the regimental combat teams, positioning FARPs well forward and extending the reach of the assault support assets."[146] These actions "directly and meaningfully contributed to the division's ability to continue its attack up Highway 27 and Highway 6 on the way to Baghdad."[147]

Despite the MSSGs inability to provide repair parts support to the ACE, mainly because of fiscal issues, *combat service support to the ACE should be practiced in CONUS and conducted in real world environments*. The ACE traditionally lacks

[146] Broadmeadow, LtCol John J., *Logistics Support to 1st Marine Division During Operation IRAQI FREEDOM*, U.S. Marine Corps Gazette, August 2003 issue, 45.
[147] Broadmeadow, LtCol John J., *Logistics Support to 1st Marine Division During Operation IRAQI FREEDOM*, U.S. Marine Corps Gazette, August 2003 issue, 45.

principal end items like HMMWVs and trucks for personnel and cargo transportation since most of their equipment is dedicated towards support of aircraft. The MSSG can fill gaps normally filled by contracted or host nation support, and at less cost to the MAGTF.

In conclusion, MSSG doctrine for combat services support to a Marine Expeditionary Unit (Special Operations Capable) has evolved into a complete mission set that ensures effective and responsive support is provided to the ground combat element (GCE) when required. *The ability to provide humanitarian assistance and disaster relief is of great concern to any Regional Combatant Commander, and the MSSG provides the bulk of that capability. This doctrine needs to be expanded to support the ACE*, and training for key leaders in the MSSG must support the current and proposed mission sets.

Organization

The **MSSG staff needs to be restructured** in order to be more effective. From 1997-98 I was the S-4 for MSSG-26. This particular organization was a solid example of how not to structure a unit. All of the platoon commanders worked for the S-3, and the staff worked for the executive officer. The S-3 and executive officer worked for the commanding officer. Communication flow among the ships while we were deployed was abhorrent. The S-3 coordinated all transportation, be it to support external units or the MSSG itself. Outside of providing ammunition support to the entire MEU, I didn't find many challenging duties left besides facilities. Efforts to expand the scope of my duties were met with tremendous resistance. Providing internal CSS support (mainly Class I

and III) to the MSSG in the field and aboard ship wasn't very difficult because the equipment and supplies were already there, and it doesn't take much effort to re-supply a unit that already has everything it needs within the same compound. Facilities work and berthing inspections are more appropriately handled by a SNCO.

A better and more effective way of properly employing the officers on the staff is to combine the S-3 and S-4 sections and break them down into current operations and future operations sections. This is the model that higher staffs such as the MEF or Division use, and this system will make the planning and coordination efforts more streamlined. Unlike an infantry battalion or aviation squadron, both sections perform logistics, and are manned by logistics personnel.

The first recommendation is *dissolve the S-4 billet and transform it into a future operations billet*, filled by a 0402 captain. The job of the future operations officer would be to plan CSS 72-96 hours out or more, ensure the right amount of combat service support is planned for, perform any necessary coordination with external units, and ensure the staff and commander is briefed.

The *S-3 would become the current operations officer*, which would be a 0402 major's billet. His job would be to actually run the combat service support operations center (CSSOC) and carry out combat service support requests. The current operations officer will execute all combat service support operations within 72 hours.

The *subordinates within the old S-3 and S-4 sections would be apportioned appropriately. Each section should have a 0491 combat service support chief to assist the officer-in-charge.* The duties and personnel associated with maintenance

management, embarkation, ammunition, training, and NBC (nuclear, biological, and chemical) would fall under the current operations section.

When operations are 72 hours out, the mission or task will pass from the future operations officer to the current operations officer. Overall, this method will *maximize the capabilities of the logistics personnel on the staff and ensure more effective coordination throughout the conduct of operations.*

The *old duties of the S-4 would be handled by a Group Gunnery Sergeant*, who would inspect barracks rooms and ship berthing spaces, set up tents, and design field cantonments. A *combat engineer*, MOS 1371, *should fill this billet*, and he would supervise the duty driver, the hazardous material custodian, and the armorers.

Another major issue concerning MSSGs is **continuity of personnel**. Typically, a MSSG will have its pick of the best Marines the FSSG has to offer. Unfortunately, it is less common now for personnel to stay on for more than one deployment. Just when the staff and subordinate platoon commanders become proficient, some or all move on to other assignments, and the MSSG fails to profit from the knowledge and experience these Marines have gained. *Procedures need to be set in place* by the FSSG, in coordination with Headquarters, Marine Corps, Manpower and Reserve Affairs, *to lock Marines in for two deployments once they receive orders to an MSSG.* Opportunities should be available for enlisted personnel to volunteer for a third or fourth consecutive deployment. The impact produced by these Marines while forward deployed a second time will far outweigh the impact on the personnel slating and assignment system.

A much greater organizational issue that affects the entire MEU and the way it's employed is **organization for embarkation and assignment to shipping (OEAS)**.

Based on the three MEU deployments I've completed, it's safe to say that embarkation plans seldom vary from one to the next. I've observed that they slightly differ between the east and west coasts, but in general the typical embark spread load on ARG shipping needs to be revisited because it is outdated.

For example, on the west coast the tanks are always on the LSD. The artillery battery is always on the LHA/LHD. The boat company and their CRRCs are always on the LPD. On the east coast the LAVs are always split between the LHA/LHD and the LPD. Even worse, the embarkation plan is designed for the amphibious assault, which is an operation not conducted in combat since 1950. Some of this might make sense because of support provided by the ship, personnel billeting, or space limitations, but a lot of it is due to commanders and embarkation planners taking the path of least resistance during the planning phase. In addition, the Navy and Marine Corps often pays lip service to the term amphibious assault. Almost all of the ones I've participated in have been administrative offloads, and were a means to go home after a training exercise, or a way to get ashore to train in a foreign country. There was a distinct lack of combat mindset throughout all of them.

I can recall my own experience as the logistics officer for BLT 3/1 from 1999-2001, and having to sort through the embark plan three months prior to our battalion chopping to the MEU. The MEU embarkation officer presented me a load plan based on the previous deployment, and there was never any latitude to change the format. All we could really do was swap like items between ships or plug in holes with whatever equipment would fit. There was never an opportunity to start from scratch and figure out if it all this could have been done better. *I don't remember the MEU commander ever*

distributing embarkation guidance, and the BLT commander had no real idea of a landing plan or even what capabilities he wanted on each ship. Discussion of a proper spread-load based on mission analysis and what we expected to accomplish on the deployment was non-existent. Worst of all, time was never a factor. These actions could have been accomplished with the right emphasis from the commanders.

Split-ARG operations are becoming more and more frequent as we move towards Expeditionary Strike Groups (ESGs), where ESG and MEU assets are allocated to several areas of operation at the same time, and separated by thousand of miles. Distributed operations are moving to the forefront as well, where smaller, more specialized groups of Sailors and Marines will be working together in support of the global war on terrorism. The need for a readily available and complete set of capabilities on each ship in order to enhance responsiveness to crises is a stark reality that many don't want to face. *A potential remedy to this is to reconfigure the three ships' load plans so that a mini-MAGTF is aboard each vessel, to include aviation support.* This will reduce the requirement for pulling into port to reconfigure loads or for surface cross-decking equipment while at sea. Planning for split-ARG operations up front will ensure that ground, aviation, and combat service support capabilities are readily available on each deck in case of a contingency operation.

To take this a step further, if the MEU and MSSG are to be engaged in missions in support of the global war on terrorism, does the MEU have the right equipment mix to meet these challenges? Are tanks and artillery the right equipment for these missions, or are they more appropriate for major combat operations in support of a land campaign? *Perhaps it would be better to deploy more LAVs and hardened HMMWVs* in order to

bring more firepower to the fight. Are tanks able to achieve speed and surprise in a war on terrorism environment? Perhaps the *MEU needs more logistics assets*, to include trucks that can carry personnel, potable water, and fuel, for movement over lengthy lines of communication. These are much larger issues to ponder for the future that will not be discussed in detail in this paper.

Training

All MSSG's participate in a rigorous six-month-long **training phase prior to deployment** with a MEU (SOC). During this period MSSG personnel learn the rapid response planning process (R2P2), embark equipment on amphibious ships, support special and conventional operations, and conduct amphibious assaults. Each Marine Expeditionary Force (MEF) Special Operations Training Group (SOTG) oversees the pre-deployment training program, and without these skills MSSGs cannot effectively accomplish potential missions while forward deployed.

One training program that is often overlooked for MSSGs is the Combined Arms Exercise (CAX) at the Marine Air-Ground Task Force Training Center (MAGTFTC) Twenty-nine Palms, California. The MSSG is expected to have developed their basic combat and combat service support skills prior to chopping to the MEU. *Basic skills for each MOS must already be sharp, and each Marine must know he is a rifleman first*. All-around proficiency must already be attained. There is precious little time for these activities once under operational control of the MEU command element.[148]

[148] Weston, LtCol Wes S., USMC, former commanding officer of MSSG-24 during OIF, interview conducted October 5th, 2004.

The only time allotted for the MSSG to develop this foundation is in between MEU (SOC) cycles deployment. *Supporting a CAX is a must-do for MSSGs, because they are exposed to quality training and challenging combat service support in an expeditionary environment.* Other major conventional exercises, such as Desert Fire Exercises, are unacceptable. *Combat service support training must be integrated with maneuver to replicate what will be experienced in combat.* The MSSG would gain valuable experience while supporting a regimental headquarters and two reinforced infantry battalions over a three-month period. This is a golden opportunity for the MSSG commander to create and perfect standard operating procedures and streamline the operation of his CSSOC. MSSG personnel will find out what it's like to support infantry, artillery, amphibious assault vehicles, tanks, and light armored vehicles all at once. This is the perfect environment to replicate what the MSSG would encounter in such places as Iraq, Afghanistan, Kuwait, and the Horn of Africa.

The training opportunities at MAGTFTC 29 Palms are plentiful, particularly in the area of live-fire. Every Marine is a rifleman, and with the nature of MEU (SOC) employment gravitating toward combat operations in support of the war on terrorism, *there can be no more rear-area mentality among CSS units. Each MSSG Marine must maintain a combat mindset and be proficient with all personal and crew-served weapons on the table of equipment.*

Convoy security training with live-fire machine gun marksmanship training is *absolutely essential*. Insurgent ambushes and roadside remote-controlled improvised explosive devices are the most common threats in Iraq. The terrain at 29 Palms lends itself to training to counter these attacks.

Other areas of emphasis should be rear area security, force protection, military operations in urban terrain (MOUT), and fire support coordination. MSSG officers should be taught call for fire and given a chance to execute these calls for fire[149] during fire support and air support coordination exercises. Training for the use of fire support is seldom seen in the MSSG. In today's combat environment, the ability to call in fire support is invaluable to all personnel, regardless of specialty. *All key billet-holders should be trained in call for fire*, be it for real at CAX or in a training simulation facility. Also, the officers in the operations section should be sent to tactical air control party (TACP) school to learn to call in air strikes on the enemy. These skills could be crucial to protecting convoys, command posts and rear areas, or other friendly forces. In turn, these individuals can provide training to the remainder of the unit.

Once this foundation is set, the MSSG will be properly prepared to begin the six month long pre-deployment MEU (SOC) workup period, which is divided into three phases. The **Initial training phase** focuses on R2P2/staff planning, CSSOC operations, readiness, individual MOS training standards, equipment operator training, and providing CSS during MEU exercises.[150]

The **Intermediate training phase** consists "of integrating all elements of the CSSE in order to accomplish mission-directed training and interoperability with the other MSEs."[151] Training focus includes the establishment of CSS ashore, operating as a mission commander in HA/DR and NEO, and mass casualty operations.

[149] Weston, LtCol Wes S., former commanding officer of MSSG-24 during OIF, interview conducted October 5th, 2004.
[150] U.S. Marine Corps Order 3502.3A, 10 Jan 2001, Enclosure 5, 2.
[151] U.S. Marine Corps Order 3502.3A, 10 Jan 2001, Enclosure 5, 3.

The **Final training phase** consists of preparation for embarkation and the final at-sea periods. The MSSG must "demonstrate the capability to provide combat service support needed by the MEU in its successful execution of all MEU (SOC) assigned missions. This evaluation will determine the MSSG's ability to provide flexible, responsive, and effective CSS."[152] Ship-to-shore movement and proficiency in conducting SOC missions are the keys to success. Responsiveness and pre-built support packages are as well.

In the end, **the MSSG must be interoperable with the other major subordinate elements**. One key piece to this is *direct support to the BLT during the pre-deployment training phase.* When I served with an MSSG on the east coast, we provided all transportation, intermediate maintenance, and re-supply of the BLT prior to deployment. While serving with a BLT on the west coast, this was not the case and support relationships were strained while on deployment. *The east coast model works best.* The sooner the two units become comfortable working together, the better.

With the previous discussion as a base, new **innovations in training** must be investigated in order to effectively operate as an MSSG in the future. First, we have to ask the question about what types of missions should MSSGs be training for by 2010? Will MEU (SOC)s be involved in traditional missions or will they be involved in war on terrorism missions? If the large land campaigns in the Middle East and Central Asia are drawing to a close, and MEUs are back to sea-based operations of a limited nature, then the MSSG will be called upon to perform unique war on terrorism missions for which they won't be quite prepared with today's capability sets. I suggest the adoption of new

[152] U.S. Marine Corps Order 3502.3A, 10 Jan 2001, Enclosure 5, 3.

skill sets to augment the original ones, which will enhance the MSSG's success in future warfare.

Before describing these new skill sets, the nature of special operations missions for MSSGs must be set forth. The primary special operations mission conducted by the MSSG is the **humanitarian assistance** operation. A typical MSSG will deploy with a humanitarian assistance supply block, which consists of containers filled with general-purpose tents, concertina wire, multi-faith rations, and medical equipment. The facility provided by this supply block can house approximately 300 displaced persons.[153] The MSSG will train so that they arrive quickly at the crisis area, set up a processing facility, and begin to process the refugees and provide them with food, shelter, and comfort items. The problem is there will almost always be more than 300 displaced persons arriving in a disaster area. They will usually number in the tens of thousands and will require a larger force to support them. *The MSSG is a viable option as a force enabler, with an initial capability that could provide some order until a larger humanitarian assistance element shows up, but they cannot handle the task alone. Other value added is within the forward command element, where MEU and MSSG personnel can advise the local government concerning logistics and communications.*

The noncombatant evacuation operation **(NEO)** is also a primary mission for the MSSG. Typically, the MSSG will run an evacuation control center (ECC) in an embassy of a country where the political situation has deteriorated. The ECC searches and screens American citizens and other evacuees before they are transported to safety. An embassy NEO, where typically there will be a few hundred evacuees, the MEU will normally

[153] Weston, LtCol Wes S., former commanding officer of MSSG-24 during OIF, interview conducted October 5th, 2004.

reinforce the embassy, the MSSG will set up an evacuation control center, and evacuees will be transported to a secured airfield so they can be flown to a safe haven.

Currently, MEUs train to transport evacuees by surface or air means to ARG shipping. In certain extreme situations, this has to happen because moving evacuees to an airfield or port facility is untenable. During Operation Sharp Edge in 1990-91, 2690 people were brought out to the USS Saipan ARG from the U.S. Embassy in Monrovia, Liberia. It is more likely that the deteriorating situation in the country in question would be detected well in advance, and American citizens and other key dignitaries would be able to evacuate well before the conflict erupted. *Ideally, the MEU should transport evacuees to a secure airfield for commercial aircraft transportation to a safe haven, instead of via helicopter to Navy vessels. Training scenarios and planning exercises need to reflect the most likely situations MEUs will encounter in addition to the most extreme situations.*

There are certain **invaluable skills** that all Marines who deploy to combat zones must have. The first skill that needs to be enhanced is improvised explosive device **(IED) detection and detonation**. The MSSG needs more explosive ordnance disposal (EOD) personnel (see Personnel section), but due to manpower limitations they most likely will not have fill this requirement in the near future. *Each MSSG Marine, especially those who routinely operate tactical vehicles, needs to be thoroughly trained in identifying IEDs and shown how to detonate them from a safe distance.* EOD will be spread way too thin if they have to disarm each IED found on the battlefield.

Secondary skill sets in the areas of **foreign languages, translation, and HUMINT collections** are crucial. *Combat service support Marines, especially during*

humanitarian operations, are frequently coming in contact with the local populace. The ability to communicate with them and gather information that can be exploited later is invaluable. HUMINT exploitation teams are extremely useful, but are usually squad-sized units. If a more widespread information flow could be generated there would be a greater chance of locating a high-value target, determining disposition of enemy forces, or enhancing the success of the civil-military mission at hand. At the very least, the ability to identify and communicate with locals will endear the Marines to the population as a whole and help win the locals' hearts and minds.

Military police **(MPs)** have come to the forefront of the modern battlefield as of late. The capture, detention, and exploitation of terrorist prisoners for information has become commonplace. *MPs must be prepared to operate in the war on terrorism environment, which means they will need to be able to handle enemy prisoners of war (EPWs) and run confinement facilities. Military police must train to become proficient in their four main missions*: antiterrorism/force protection support, area security operations, law and order, and internment.[154] Infantry will not be available for security of CSS units or rear areas, so these tasks will fall on the shoulders of military police. In addition to traditional missions, MPs need to be the MSSG leaders in land navigation, patrolling, convoy security, and marksmanship.

Air delivery is a skill typically not resident in the MSSG. In fact, it is seldom used at all as a means of combat service support, and even simple training opportunities in garrison are few and far between. As seen lately in Afghanistan, where Marines have been operating in regions inaccessible by most helicopters, means of re-supply may be limited to air delivery from a C-130 or CH-53. The additional manpower for rigging and

[154] U.S. Marine Corps Warfighting Publication 3-34.1, *Military Police in Support of the MAGTF*, 1-1 to 1-3

repacking parachutes can also be of aid to reconnaissance units. These Marines should cross-train for and conduct helicopter support team missions to move supplies by external lift. *All transportation support Marines must possess at least limited air delivery and helicopter support team skills*. They must develop their skill sets to be able to perform the broad range of combat service support beyond simple landing force support party (LFSP) operations.

Since training for land-based operations is the focus, there tends to be a lack of secondary skill sets in the MSSG for dealing with seaborne threats. During sea-based operations, a mission sometimes given to the MEU is **maritime interdiction (MIO)**. A typical situation might be that a high-value target, be it a terrorist leader or weapons of mass destruction (WMD), is moving in a boat or cargo dhow through international waters. If the nearest ship to the HVT is the MSSG flagship, an LPD or LSD, and no MSPF or infantry are aboard, the MSSG will be left to handle the mission. In order to be responsive and take advantage of a typically tight window in time, certain *MSSG Marines must be prepared to conduct low-freeboard compliant and noncompliant boarding of vessels*. They must be trained to detain individuals, search and seize cargo, and even to destroy the vessel using demolitions. This responsiveness to seaborne threats further enhances flexibility and the ability to support the Joint Task Force (JTF) or Joint Forces Maritime Component Commander (JFMCC).

Training military police, EOD, and other augmentees to perform these maritime interdiction missions will further augment the MSSG's overall skill sets. United States Navy cruisers, destroyers, and frigates routinely train sailors to conduct boardings such as

these. MSSG personnel can participate in this training along with sailors in order to save time and not interfere with other training events.

In closing, *future operations demand radical approaches to training*. The MSSG commander must use all of his time wisely to not only train his own unit to perform combat service support, but to actually perform his most important mission, which is external support to the MAGTF. Training must be prioritized and time must be carefully managed to incorporate these new training approaches into a predeployment training plan. The MSSG commander will need the full support and assistance of the MEU commander, the SOTG, and the FSSG commanding general.

Materiel

The MSSG table of equipment (T/E) is in dire need of a change. There are many problems confronting an MSSG commander and his T/E, most importantly the anticipated operating environment and embarkation space limitations aboard Navy ships. If the commander knows he's being taken straight to Iraq or Afghanistan, then he can tailor his equipment pool for the mission. The commander who will be at sea awaiting a contingency mission has to play the guessing game prior to deployment. Although the individual Marine is our most precious asset, if ill equipped he can only be so effective. Due to the nature of conflict over the past three years, a lot of new information has come to light regarding equipment shortfalls, deficiencies, and successes. After reviewing the after action reports from operations Iraqi Freedom and Enduring Freedom, several recommendations for improvements will be provided in this paper to make the MSSG a more effective combat service support provider.

First, **individual combat equipment** must be addressed. While there have been significant improvements in clothing, packs, Camelbaks, etc., one thing that puts MSSG Marines at a disadvantage is their individual weapons. Our tables of organization still reflect a peacetime mentality, where senior enlisted and officers carry pistols and sergeants and below carry rifles. This thinking is entirely inadequate. Since Marines lately have seen an abundance of urban combat in the littorals and inland, I suggest switching from the M16A2 service rifle to the M4. According to the U.S. Marine Corps Systems Command Central Iraq field report of 25 April, 2003, "many Marines expressed the desire for a shorter weapon for when mounting or dismounting a vehicle, firing from a vehicle, or operating in close quarters in an urban area."[155] The report reflected the fact that "most small arms engagements in OIF I occurred in the 20-30 meter range, and that shots over 100m were rare."[156] *All personnel deploying to combat zones should be issued an M4 rifle, to include officers and SNCOs*. In addition to the M4, many personnel should have a back up weapon, such as a 9mm pistol—at least one per fire team. These are also ideal for engaging the enemy in close quarters. I suggest the Marine Corps switch from the 9mm Beretta to the 9mm Glock, which is used by the Navy SEALs. The Glock has a smoother action, is lighter, and more reliable than the aging Beretta.

U.S. Naval Forces, Central Command has levied a requirement for all personnel deploying to Iraq or Afghanistan to have **Interceptor body armor** prior to leaving CONUS.[157] This is a step in the right direction. The old flak jacket was totally insufficient, and lacked ballistic plates to deflect larger caliber rounds and shrapnel. At

[155] U.S. Marine Corps Systems Command liaison team, *Central Iraq Field Report*, 20-25 April 2003, 4.
[156] U.S. Marine Corps Systems Command liaison team, *Central Iraq Field Report*, 20-25 April 2003, 6.
[157] GENADMIN/USNAVCENT/041245Z FEB 2004/REQUIREMENT FOR INTERCEPTOR BODY ARMOR ISSUANCE PRIOR TO DEPLOYMENT TO CENTCOM AOR.

the outset of OIF I, most support units, to include MSSGs and the aviation squadrons, deployed without small arms protective inserts (SAPI). *Each Marine should be permanently issued two SAPIs along with their Interceptor flak vest and associated accessories.*

Another item that needs to be addressed is **unit shelter requirements**. The general purpose (GP) and command post (CP) tents a MSSG deploys with should be reserved for use during humanitarian assistance and disaster relief missions, where thousands of displaced persons would require massive amounts of shelter. Large and bulky GP tents take up way too much embarkation space and are hard to transport in cargo vehicles that should be reserved for personnel movements. They have too many parts that can be broken or lost. *The DRASH system provides shelter alternatives that are lighter and more durable that what can be found in the Marine Corps inventory*. These tents are truly expeditionary, can be erected within minutes, are easily air-conditioned, and are more suitable for housing a command post in the field that may have to displace frequently. As far as personnel billeting, the 2-man pup tent is a great choice since Marines can easily transport them in their personal gear, which helps save time for units that displace constantly.

With the proper individual combat equipment, MSSG Marines can perform the basics in the field. Additional suggestions will be provided for improving motor transport, engineering, and materiel handling equipment so they can conform to Marine Corps and MEF performance standards. In today's combat environments in Iraq and Afghanistan, where lines of communication are longer than ever in our history, the capability of **motor transport assets** must be maximized and stretched. The new 7-ton

capacity medium vehicle tactical replacement **(MTVR)** was a key enabler in the long march to Baghdad. This movement probably would not have happened with the old 5-ton trucks. The logistics vehicle system (LVS) is aging and has overextended its service life. HMMWVs need to be hardened and modified for extended driving distances to reduce the burden on refuelers.

All MTVRs should be equipped with a ring mount and a heavy machine gun,[158] *either a M2 .50 caliber gun or MK19 40mm grenade launcher*. Long gone are the days of safe roads in rear areas. One would be hard-pressed to locate or even define a rear area in today's battlefield. Marines in each vehicle must have the ability to defend themselves, and potentially shift to the offense. While the MTVR is a new vehicle and is very roadworthy, there is a demand for more durable windshields, since they were "unable to withstand the overpressure of higher artillery charges."[159] Another complaint is that the bed is too high, which makes it hard for personnel to mount and dismount quickly and increases the chances of non-combat related lower extremity injuries. Maintenance on the high technology computerized diagnostic equipment will be a challenge as well. Marines need to be trained on this equipment in order to effect field repairs.

These deficiencies are minimal, and can be dealt with fairly easily. The bottom line is that MTVRs are more durable and dependable than any other transportation asset we have, and more will be needed by the MSSG to transport cargo and personnel. *The T/E should be increased to reflect the maximum number of MTVRs that can fit on the ships, and many of the LVS should be replaced by MTVRs until a suitable LVS*

[158] Transportation Support Platoon Commander, MEU Service Support Group 22, Operation Enduring Freedom, interview conducted November 9th, 2004.
[159] U.S. Marine Corps Systems Command liaison team, *Central Iraq Field Report*, 20-25 April 2003, 3.

replacement is fielded. This will enable the MSSG to support a wide array of personnel and cargo transportation missions that the BLT and CE cannot support. The BLT especially has very limited personnel movement capability without using their artillery battery trucks. Other than these, they are wholly reliant on the MSSG and host nation assets.

*All **HMMWVs** should be armored when they come off the assembly line*. In the past the only units that had armored HMMWVs were the 1st Marine Division. Combat service support units had none save the military police. On today's battlefield everyone is susceptible to attack at any moment. The up-armor process that began shortly before the deployment of forces to Iraq was a good initiative, but not all deployed vehicles have received the modification even to this day. According to the December 20th, 2004 issue of ***Time*** magazine, "of the nearly 19,389 HMMWVs in Iraq, 5,910 are fully armored, while an additional 9,134 are outfitted with less effective, bolted-on armor. But that leaves 4,345 without any armor."[160] This means that, at the time this article was written, only about 30% were fully armored, and 22% had no armor at all. This has greatly impacted the number of casualties and Marines vulnerable to IEDs. We must be proactive and spend the extra money up front to armor all HMMWVs in order to save more lives.

All HMMWVs should also be outfitted with a more effective apparatus to carry extra fuel cans. Prior to Operation Iraqi Freedom, I MEF purchased gypsy racks, which "gave our Marines the ability to carry about six extra cans of gas each, giving units that

[160] Time magazine, Dec. 20, 2004 issue, p. 32

extra confidence to push their vehicle to the limit in combat."[161] These racks can be mounted on the tailgate or overhead and almost double the range of the HMMWV without external refueling support. *The HMMWV is one of the most useful and versatile tools in the Marine Corps inventory. It should be fully modified and outfitted for combat*. Soft skin and limited fuel capacity make it less effective.

The **LVS** is no longer a viable piece of equipment on the battlefield. It has reached and exceeded its service life. Although an outstanding platform for carrying palletized cargo and containers, it has proven it cannot withstand the rigors of long-term combat operations. The articulating motion and complex drive train have no real survivability in austere conditions.

Discussion of the LVS brings up the subject of **line haul capability**, of which the MEU and MSSG has none. Every time a MEU conducts a landing in a foreign country it is dependent on host nation or U.S. Army heavy equipment transport (HET) support to move materiel handling equipment (MHE), containers, and tracked vehicles. Bringing the Mk 48/16 with an M870 lowboy trailer aboard ship is not feasible due to embark space limitations. *More funds for service life extension should be funneled toward the Mk 48 and Mk-18*.[162] With the self-loading action of the Mk-18, the need for MHE to load containers onto trucks would be obviated. When contracting or receiving support from coalition partners and other services, supplies will typically be moved in 20-foot ISO containers. The Mk-18 can load these containers onto its bed without MHE support, which is especially important at the cargo destination, which is usually a remote location that may not be accessed by lowboy trailers or rough terrain container handlers (RTCH).

[161] Blackledge, Colonel Matthew W., *Professionals Talk Logistics*, U.S. Marine Corps Gazette, August 2003 issue, p. 41.
[162] U.S. Marine Corps Systems Command liaison team, *Central Iraq Field Report*, 20-25 April 2003, 6.

Reducing the demand for MHE support will create less of a burden on required line haul support since MHE must be transported on lowboys as well.

With extended lines of operation and communication becoming more prevalent, **maintenance contact trucks** have become essential to performing field repairs. Often an intermediate maintenance facility is too far away to evacuate a downed piece of equipment, especially if it's a tracked vehicle or large truck. *With the availability of more contact trucks, a greater portion of the battlefield can be covered and critical, and often short-handed, recovery assets can be shifted towards more pressing issues.* MSSG-22 added an additional contact truck before deploying to Afghanistan in 2003, and this "allowed for more flexibility in the location of maintenance personnel."[163]

The final recommendation for motor transport assets, which comes from the U.S. Marine Corps Systems Command Central Iraq field report, is for **ambulances** to be "*outfitted with bulletproof glass for transporting casualties."*[164] *A small refrigerator inside would be ideal for "transporting immunizations*."[165] The report also identified a desire to *remove the racks inside the ambulance for the litters and replace with shelves for storage of medical supplies*. The M997 ambulance was found to be a very durable vehicle overall, but not conducive to intense combat casualty treatment and evacuation.

Now that motor transport equipment has been covered, the next issue is **engineer equipment**. Whether for utilities or materiel handling, engineer equipment has been hit or miss throughout the Marine Corps over the years. Some equipment is known to be reliable, while other equipment has been virtually useless. Utilities engineering

[163] Maintenance detachment commander, MEU Service Support Group 22, Operation Enduring Freedom, interview conducted November 9th, 2004.
[164] U.S. Marine Corps Systems Command liaison team, *Central Iraq Field Report*, 20-25 April 2003, 11.
[165] U.S. Marine Corps Systems Command liaison team, *Central Iraq Field Report*, 20-25 April 2003, 11.

equipment has long been overlooked as a necessary T/E item below the MEF or Division level. A typical headquarters in the field is now heavily reliant on information technology (IT) systems in order to operate, to include a MEU command post. Generators and air-conditioning units are essential to maintaining proper IT system functioning, especially in a desert where 115 degrees is routine. The current Marine Corps inventory of **generators** is too small. Ideally, when running generators in support of a combat operations center or command post, one generator is run for 12 hours and a back-up is run for 12 hours in order to prevent them from being over-stressed. Most MSSGs deploy with too few generators[166] and can't employ the one-for-one back up system, causing too much stress on the units in use. *MSSGs should deploy with more sixty-kilowatt tactical quiet generators, and several smaller three or ten kilowatt generators for lesser power requirements. This will enable the proper functioning of not only the MEU command post, but the JTF enabler package as well.*

Another major shortfall is **air conditioning units**. They are too large and bulky to be mobile-loaded on vehicles and cause embarkation space problems aboard ship. While generators fit nicely onto M101 trailers, the air conditioning units do not since most are skid-mounted. When I was the assistant logistics officer at the I MEF Headquarters Group, we purchased several commercial air conditioning units to support the future I MEF command post in Camp Commando. These units were durable, reliable, required less power to operate than tactical air conditioning units, and could withstand the rigors of employment in austere environments. I suggest the MEU and MSSG purchase

[166] Clarke, Major Darin J., MEU Service Support Group 22 Operations Officer, Operation Enduring Freedom, interview conducted November 9th, 2004.

or borrow commercial air conditioning units as an alternative method to protect critical IT systems.

The use of **ROWPU and bulk liquid distribution assets** is critical to success in humanitarian operations. Movement of fuel to re-supply our own forces, and movement of fresh, potable water in support of reconstruction operations like those ongoing in Iraq are key aspects of the MSSG's expeditionary logistics capabilities. The U.S. Marine Corps Systems Command Central Iraq field report showed that while fuel and water sixcons are durable, some of the pumps are not. The 125 gallon-per-minute pumps degraded quickly, and the *report suggested the use of 165 gpm pumps,*[167] which work faster and more effectively. Also, the ROWPU is nearing the end of its service life. Although a quality piece of equipment, they have been extremely overworked since the beginning of Operation Iraqi Freedom. They are also large and bulky, and should employment similar to TF 58's movement to Camp Rhino occur again, *a water purification system that can be transported in a helicopter would be more suitable*. It would be prudent to *begin developing the next generation of ROWPU that would be more compact, lighter, and more expeditionary*.

Two noted successes during Operation Iraqi Freedom were the **D9 bulldozer** and the **TRAM** 10,000-lb. capacity forklift. These two pieces were the workhorses of many engineer and combat service support units, and withstood long operating hours in sandy, dusty environments. These items are invaluable in humanitarian operations when it comes to digging irrigation ditches, moving large obstacles, and helping to transport vital supplies. Every MSSG should bring at least one bulldozer and two TRAMs on deployment.

[167] U.S. Marine Corps Systems Command liaison team, *Central Iraq Field Report*, 20-25 April 2003, 8.

Marine Corps equipment has many shortfalls, but MSSGs usually make do with what they have. There is no doubt improvements are already in the works. A much greater and more longstanding shortfall has been **command and control systems** required to conduct CSS operations. The arrival of the Global Combat Support System-Marine Corps **(GCSS-MC)** will revolutionize the way MSSGs and the entire combat service support community supports the warfighter. Our current systems, ATLASS, SASSY, and MIMMS, don't talk to each other or to other services' systems. GCSS-MC promises to be a "new joint and interoperable system that will enable everyone to view real-time logistics intelligence, use planning tools to determine support requirements, and report mission critical data on ground equipment."[168]

According to Col Blackledge, I MEF G-4 during Iraqi Freedom, in August 2003 *Marine Corps Gazette* article, it was proven that "the Marine Corps does not have a true grasp of in-transit visibility of parts, personnel, equipment, and supplies moving about the battlefield."[169] LtCol John Broadmeadow, the 1st Marine Division G-4 during Iraqi Freedom, stated in that same edition of the *Marine Corps Gazette* that "the supply support system was inadequate most times and a total failure at its worst," and that "there is no unity of effort."[170] In his testimony given to the House Armed Services Subcommittee on Readiness, Brigadier General Edward Usher, Commanding General of 1st FSSG during Iraqi Freedom, said "our greatest shortfall during OIF was the lack of in-

[168] Swift, Col. Steven A., USMC (Ret) and Chandler, LtCol John W., USMC (Ret), *Logistics Transformation: Embedding Support*, U.S. Marine Corps Gazette, August 2003 issue, 21.
[169] Blackledge, Colonel Matthew W., USMC, *Professionals Talk Logistics*, U.S. Marine Corps Gazette, August 2003 issue, p. 41.
[170] Broadmeadow, LtCol John J., USMC, *Logistics Support to 1st Marine Division During Operation IRAQI FREEDOM*, U.S. Marine Corps Gazette, August 2003 issue, 45.

transit visibility information to incorporate into our command and control effort."[171] He further stated "the lack of asset visibility…made it difficult to identify actual shortages…and resulted in delays, shortages, and at times an inability to expedite critical parts."[172]

This new system will enable CSS units to track the movement of repair parts and supplies both worldwide and on the battlefield. Giving the supported commander peace of mind knowing that the support he has requested will be delivered at the right place and at the right time will increase his overall confidence. All individuals involved in the request and support process will be able to access this system, and the movement of supplies can be viewed in real time.

This situation has been a sad state of affairs for far too long. I can remember my own experiences as the S-4 for BLT 3/1 never knowing where parts were while en route to our ships. All I ever knew was that a particular part had shipped, but never had an idea as to when it would get there, if it ever did. Typically parts would stack up at the Deployment Support Unit at Camp Pendleton and sit there until enough parts had accumulated to rate a full shipment. When the deployment was nearing its end, no parts would be shipped at all. We had to wait until we returned to CONUS to pick up all the parts and perform repairs. What that meant was our battalion was essentially combat ineffective for the last two months of the deployment. It would have been greatly beneficial to have a system that would have moved the parts and allowed me to track them all the way to the ship. I could have better planned out my maintenance program

[171] Usher, BGen Edward, Testimony regarding logistics given to the House Armed Services Committee Subcommittee on Readiness, March 30th, 2004, 3.
[172] Usher, BGen Edward, Testimony regarding logistics given to the House Armed Services Committee Subcommittee on Readiness, March 30th, 2004, 3.

and properly briefed my commanding officer. It would have made all the difference in the world.

Another critical component to these sweeping changes in the Marine Corps logistics world is the **operational architecture**. In the future a logistician will be up front and embedded with the supported units. This individual will provide a single point of contact for all logistics matters to the supported commander. He in turn will utilize the logistics distribution system to provide the required support. These *logistics officers must constantly be in the operations officers' faces. They need to be proactive and seek out what support is needed*. They need to find out the concept of operations and scheme of maneuver. If logistics officers do not take these actions and the system breaks down, it's their fault, not the operations officers' fault.

The primary area of concern with regards to GCSS-MC is the distribution of **repair parts and secondary reparables blocks**, which have long been problematic for MSSGs. The construction of the parts block, or Class IX, is usually done via a GENPAC, which is based on the equipment density list of the supported units. Once the GENPAC is built, subject matter experts in each commodity area (communications, electronics, motor transport, ordnance, engineer equipment) will go over the document in detail to ensure the parts list is as accurate as can be predicted. This process is entirely dependent on historical usage data. While deployed, the fill rates for repairs from Class IX blocks have varied. During recent deployments to the CENTCOM AOR, MSSGs have experienced fill rates of 50% or greater. Some have been as low as 25-30%. In particular, MSSG-22 had a fill rate of about 70% during their recent deployment to Afghanistan. The MSSG-22 maintenance officer stated, "the Class IX parts listing was

reconciled and validated during the MEU predeployment training program (PTP). All data from the PTP, along with history data from the DASF, were utilized to develop an accurate Class IX parts block."[173]

Perhaps this MSSG got lucky, or their use of historical data was just that proficient. Either way, a parts block takes up almost the entire lower vehicle stowage area on a small amphibious ship. In this age of worldwide shipping and tracking, *correct and accurate pre-positioned parts blocks could free up embarkation space for other critical assets. Each MEF should stage a forward-deployed parts block for MEUs in each operating theater. East coast MEUs have been using a parts block staged in Sigonella, Sicily for a few years now, but the other MEFs should take advantage of this program and place one in their own regions, specifically in Okinawa, Singapore, Kuwait, and Bahrain.*

Current initiatives to reduce the initial shipboard on-load of **MREs, NBC gear, repair parts, admin supplies**, etc. at the beginning of deployments are underway. It makes no sense to completely fill entire holds and levels of ships with contingency supplies when they can be re-supplied at sea as needed. Many of these same items are routinely brought out by Combat Logistics Force ships to re-supply the Navy vessels during underway replenishment. There is no reason why the Marine Corps can't take advantage of this same opportune lift. The MEU and MSSG can re-supply themselves when the Navy conducts vertical on-board delivery of stores. All in all, the footprint of consumable supplies aboard ships needs to be reduced. *The combination of underway replenishment and mature land-based logistics bases allows for frequent and precise re-*

[173] Maintenance detachment commander, MEU Service Support Group 22, Operation Enduring Freedom, interview conducted November 9th, 2004.

supply during deployments. After removing these excess supplies from the ships, the vacated embarkation space can be filled by other vital equipment that is recommended in this paper.

When supporting various contingency missions, the table of equipment and the capabilities brought forward are critical to mission accomplishment. When considering the amount of embarkation space allocated for Marine Corps forces across three amphibious ships, certain equipment will receive a higher priority and other equipment will be left behind. One high priority item that takes up a good deal of space is the **MSSG's humanitarian assistance block**. It usually consists of medical supplies, rations, tents, concertina wire, etc. This supply block can be reconfigured using the SPHERE Project's handbook for minimum requirements for disaster response.[174]

The SPHERE project is a group of non-government organizations that have set the standards for support to "vulnerable groups"[175] who have been displaced due to war or natural disaster. These guidelines present internationally accepted standards, so they should also drive the construction of a humanitarian supply block for MSSGs.

According to the SPHERE handbook, long-term settlements for these groups of people must provide "sanitation services, places to worship, schools, health care, and mass shelter."[176] "The initial covered floor area per person must be at least 3.5 square meters."[177] "The covered area enables safe separation and privacy between the sexes, between different age groups and separate families within a given household as

[174] Weston, LtCol Wes S., USMC, former commanding officer of MSSG-24 during OIF, interview conducted October 5th, 2004.
[175] SPHERE Handbook, p. 27
[176] SPHERE Handbook, p. 216
[177] SPHERE Handbook, p.216

required."[178] These criteria can be met in a number of ways, and with a number of different types of materials. The MSSG engineer platoon has the equipment and personnel to provide limited hardened facilities and sanitation. The housing of displaced persons with tents is a more substantial challenge. A typical MSSG humanitarian assistance block has tents that can roughly accommodate about 300 persons, but take up several large embark containers. In an interview with LtCol Wes Weston, former commander of MSSG-24 during Operation Iraqi Freedom, he stated "SPHERE calls for a 10x12 piece of plastic… I wanted to take big rolls of it…you could meet the SPHERE standard for thousands with a few rolls, it takes up less embark space, and you aren't sacrificing scarce unit property." [179] The SPHERE handbook actually states "reinforced plastic sheeting is typically supplied to households during the initial phase of a disaster response, occasionally with rope and support materials such as locally procured lumber, rope, or galvanized steel sections. Such sheeting should meet the specifications accepted by the international humanitarian community."[180] *MSSGs should consider reconfiguring the humanitarian supply block by replacing bulky and flimsy GP tents with sheets of heavy-duty plastic. Adding more items to the construction materials (Class IV) block, along with taking advantage of contracted materials in the area of operations, will enable the MSSG to provide the initial and interim capability to support thousands of displaced persons instead of only hundreds.*

All in all, the MSSG table of equipment, coupled with the initiative and aggressiveness of Marines, is enough to accomplish most missions. An intelligent

[178] SPHERE Handbook, p. 217
[179] Weston, LtCol Wes S., USMC, former commanding officer of MSSG-24 during OIF, interview conducted October 5th, 2004.
[180] SPHERE Handbook, p. 221-222

approach to the use of embarkation space and a careful selection of major end items and quantities of certain classes of supply will further enhance this capability. If the MSSG is deployed on the tip of the spear and put in harm's way, it must be equipped as such.

Leadership and education

In order to foster effective cooperation, coordination, and communication with external and adjacent organizations, *the commanding officer of the MSSG must place himself and his primary staff on the amphibious command ship instead of on the smaller amphibious ships. He and the operations officers must be co-located with other key planners in the MEU in order to ensure complete coordination of operations. The MSSG executive officer (XO) and the bulk of the MSSG personnel can reside on one of the smaller ships, with the XO being the commander of troops on that deck.* This is no different from the Battalion Landing Team, which places its headquarters on the command vessel, even though the unit is evenly spread out across all three decks.

Even with the improvement in overall shipboard communications, to include secure voice, email, and video teleconferencing, there is no substitute for **face-to-face coordination**. This is rare since the MSSG commander is typically located with the bulk of his Marines, but all major decisions come from the command ship. Being able to influence operations and decision-making processes by placing oneself near the MEU commander is crucial. The consistent interaction of staffs is also necessary. In a given deployment, with the exception of time ashore, the BLT staff might never lay eyes on the MSSG staff. Most of the BLT staff will never even know the names of some of the

MSSG key leaders. It seems rather difficult to properly support the BLT when basic communication doesn't even exist between the two supported and supporting units.

The need for communication among the major subordinate elements of the MEU is an obvious necessity. **Communications challenges** much larger in scope have appeared with Navy and Marine Corps operations transforming to meet future warfare needs. Expeditionary Strike Groups (ESGs) will include many elements from all services, the special operations community, and foreign governments. The ability to coordinate and communicate with special operations forces, coalition partners, and inter-agency officials will become more important in the future. Having established that, one key element in all this is education. As stated earlier in the Organization section of this paper, most **MSSG staffs and officers are inexperienced**, and lack knowledge on subjects such as joint operations. This needs to change. From the MSSG commander down all *leaders must become educated in joint and inter-agency operations and how these relationships impact mission accomplishment*. MEUs cannot operate or survive without the support of other services, and Departments of State and Defense agencies will play a more important support role for MEUs in the war on terrorism. *There needs to be a command emphasis on education and training, even if it's just to provide familiarization.*

When speaking of a command environment, there must be a free-flow of ideas and the encouragement of initiative and aggressiveness throughout the MSSG. The modern battlefield demands creativity and critical thinking from the even the lowest levels of the chain of command. Innovative solutions to complex problems can come

from anyone at anytime. *Each Marine in the MSSG must know the commander supports his ability to think through problems, overcome challenges, and accomplish the mission.*

The MSSG is typically a top-heavy organization for its size. In most organizations, a lieutenant colonel normally doesn't have lieutenants as his subordinate commanders. Opportunities abound for micromanagement and excessive supervision. The problem of inexperience with the staff and platoon commanders must be overcome immediately upon formation of the unit through education, be it through formal school or unit training. *These junior officers and senior enlisted must be given responsibility, empowered to make decisions, and allowed to make mistakes. The only way for a leader to truly take charge and grow is to exercise initiative and feel his decisions count for something.*

Personnel

The MSSG table of organization **(T/O)** needs strong revision. Some revisions have taken place recently, but still fall short of the mark based on after action reports from Operations Iraqi Freedom and Enduring Freedom. Due to the changing nature of regional engagements and long-term combat operations, *new skill sets must be introduced and others improved within the MSSG in order to operate effectively across the spectrum of conflict.*

There are several primary sections that need to be addressed, beginning with the **intelligence section**. When I deployed with MSSG-26 in 1998, we had a sergeant as our lone intelligence specialist. He normally was used by the operations section with various duties, and did hardly any intelligence collection or analysis. The current revisions of the

MSSG T/O are not much better, with a sergeant and a lance corporal as intelligence analysts within the S-3. The MSSG S-2 section needs to be much more robust. *The revised MSSG T/O should include a SERE-trained ground intelligence officer, filled by a 0202 first lieutenant, one staff sergeant intelligence chief, two intelligence analysts, and an Arabic linguist.* This group would be able to perform a wide variety of functions, but mainly will provide the MSSG commander with logistics intelligence concerning road networks, bridge capabilities, terrain, weather, and the enemy situation. Furthermore, with SERE training the intelligence officer can train the remainder of the MSSG in survival and resistance techniques in case convoys get lost and personnel are captured. There were a few instances of this with Army combat service support units during Operation Iraqi Freedom, and with today's combat environment anyone can be taken prisoner and tortured.

The *linguist can help train his fellow Marines in the Arabic language and cultural attitudes,* and while performing humanitarian operations the MSSG Marines will better identify with the indigenous people and help win their hearts and minds. The intelligence section can work with the CE's undermanned HUMINT exploitation teams to *educate MSSG Marines about gathering human intelligence while working with the local population*. In turn, this intelligence can be collected and sent to the MEU command element for analysis and exploitation. The more eyes and ears we have gathering information about our enemy, the better.

In the past, intelligence has been all but ignored by the combat service support community. *The intelligence capabilities of the MSSG, and even the Force Service*

Support Group (FSSG), should be on par with those of their counterparts. The time has come for drastic improvement within this warfighting function.

Explosive ordnance disposal **(EOD)** personnel are a major critical shortfall in today's combat environment. Improvised explosive devices (IEDs) are everywhere on the battlefield and constitute the main threat to our personnel and vehicles. It takes a lot of time and money to train an EOD Marine, but the lives saved with more of them on the T/O would be well worth the effort. They must continue to operate under MSSG operational control (OPCON), and be tasked out as required. The future MSSG T/O being developed by Marine Corps Total Force Structure (MCTFS) for both the east and west coast has 4 SNCOs and 2 NCOs in the EOD section.[181] *The number of EOD Marines deploying with a MSSG must be doubled*. These Marines are critical to the survivability of the force. With more of these technicians on hand, they can be *spread out throughout the MEU, and can provide ready support to units operating at company-size or less*. At the very least, they can train other Marines to recognize and detonate IEDs from a safe distance. Based on MSSGs' experiences during Operations Enduring Freedom and Iraqi Freedom, EOD Marines were entirely over-tasked.[182] They are on a constant deployment cycle with no down time. Over time this occupational field must be expanded since there will be no shortage of calls for the destruction of IEDs or demolition of weapons caches in the future global war on terrorism.

Military police **(MPs)** are another critical shortfall. MCTFS future T/Os for MSSGs reflect one GySgt and 13 Sgt and below.[183] This is still not enough. *The T/O*

[181] Future MSSG T/O, U.S. Marine Corps Total Force Structure System, 2004.
[182] Weston, LtCol Wes S., USMC, former commanding officer of MSSG-24 during OIF, interview conducted October 5th, 2004.
[183] Future MSSG T/O, U.S. Marine Corps Total Force Structure System, 2004.

must increase to a platoon of twenty[184] *in order to be able to accomplish the four main missions of MPs in support of combat operations*, which were stated in the Training section of this paper. Sub-categories of these four include information operations and collecting, criminal investigations, enemy prisoner of war (EPW) handling, and rear area security. MSSG convoys will always be required to provide their own security, and there are no extra personnel on hand to provide security to facilities such as ammunition storage points and command and control centers. Most important is the capability to run a "Prisoner Under Custody Facility"[185] for captured insurgents or terrorists. All major subordinate units require a place to hold and interrogate prisoners before turning them over to other government agencies or host nation governments. Military police with brig experience are the logical choice to run such a facility. All in all, *this extensive list of duties and responsibilities is more than a fourteen-person unit can handle in support of a MAGTF*.

The **maintenance platoon** can *streamline its T/O by combining MOSs*. For example, a generator operator is MOS 1141 and a generator mechanic is MOS 1142. Why does there have to be a separate Marine to perform each function? Based on my observation, the mechanics know how to operate the generators better than the operators themselves. The same goes for other utilities engineering and motor transport specialties. When considering motor transport operators and mechanics, one must ask why can't we train the Marine who drives the vehicle to fix the vehicle also? Does driving a HMMWV or MTVR take that much time and effort? I believe this *redundancy in personnel can be*

[184] Transportation Support Platoon Commander, MEU Service Support Group 22, Operation Enduring Freedom, interview conducted November 9th, 2004.
[185] Transportation Support Platoon Commander, MEU Service Support Group 22, Operation Enduring Freedom, interview conducted November 9th, 2004.

greatly reduced through the reorganization of instruction at combat service support schools.

With the extra line numbers freed up on the T/O, the maintenance platoon can bring on board more tank, AAV, and LAV mechanics. With the fielding of the Expeditionary Fighting Vehicle coming soon, the MSSG will be hard pressed to provide intermediate maintenance or overflow organizational maintenance to the BLT when tracked vehicles are operating in a high tempo operational environment. More mechanics will be required to augment this maintenance support, which is already limited. The four tanks MEUs deploy with now nearly overwhelm the MSSG's ability to refuel and maintain them, let alone 15 EFVs and 16-18 LAVs.

Personnel do not grow on trees. *Over time these critical specialties mentioned here should be expanded, while others can be combined.* The key to all of this is smart and careful mission analysis when constructing the table of organization and eliminating redundancy among functions. **The ultimate goal is a highly educated Marine capable of employing a wide variety of skills on the battlefield**.

Facilities

Shipboard accommodations and systems, in particular **communications**, for the MSSG need to be improved. With the adoption of the Expeditionary Strike Group concept, the MSSG flagship, usually an LPD or LSD, will begin to work much more closely with ships like cruisers and destroyers, which are outfitted with state-of-the art command and control systems. In order to effectively communicate on certain circuits, and be able to support steady data communications with sufficient bandwidth, the smaller

amphibious ships need to be upgraded in almost all areas. *The new LPD-17 class of amphibious vessels will correct a number of sea-based infrastructure problems currently experienced by the MSSG.*

The LPD-17 will bring many *improvements in the areas of embark space, berthing, helicopter landing spots, and command and control systems*. It will be equipped with the Advanced Enclosed Mast/Sensor (AEM/S) system, which will house all of the ship's radars and communications antennas. This will facilitate a wide area network and supply proper bandwidth to communicate with the larger and more advanced vessels, mainly in areas of SIPRNET, video-teleconferencing, and the transmission of sizeable email attachments such as confirmation briefs.

In terms of the overall big picture of amphibious and strike operations, the LPD 17 will serve a greater purpose:

> In the Sea Power 21 concept, Expeditionary Strike Groups, combining expeditionary warships, surface combatants, submarines, and Littoral Combat Ships will serve as Sea Strike and Sea Shield force multipliers, operating from Sea Bases worldwide. The LPD 17 Class will be a fulcrum for these future naval expeditionary operations. The multi-mission San Antonio Class is designed and engineered to operate either as a critical part of a group, or alone, operating forward, in hostile waters. The LPD 17 has a reduced vulnerability in the littoral environment by minimizing radar signature using a streamlined topside design. Combining this significant improvement with state-of-the-art command and control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) capabilities and upgraded self-defense systems significantly improves the ship's ability to defeat airborne threats. The LPD 17 design reflects a revolutionary emphasis on shipboard survivability through an organization that will support both traditional manning and core/flex approaches, a focus on vulnerability reduction, and 21st-century survivability features. Never before has a

> design meshed these attributes into such a comprehensive approach to optimizing ship survivability.[186]

These new technological advances will allow MSSGs to operate from the sea in a semi-permissive or non-permissive environment. Other advantages include:

> …enhanced command and control features and a robust communications suite that greatly improve its ability to support embarked landing forces, Marine Air Ground Task Forces, Joint or friendly forces. The ship's Combat Information Center, Marine Tactical Logistics Center, mini-Intelligence Center, and Troop Operations command and control spaces are equipped with large screen displays and dedicated computer consoles. Removable "smart bulkheads" integrate these spaces to create synergy and the shared knowledge needed to improve operational agility. A separate mission planning space provides the assets for crisis action planning critical to Special Operations Capable missions.[187]

This concept is light years ahead of the current Austin-class LPDs and the Whidbey Island-class LSDs. A series of five joint Navy and Marine Corps workshops reviewed and revised the LPD 17 space allocations for the Combat Information Center (CIC) and troop operations. Based upon real-world experiences, "the new space design allows for equal access to information and situational awareness for both Navy and Marine commanders, while providing for the flexibility to transform the spaces into a single, integrated command and control center."[188] This was the first ship whose design was significantly influenced by Marines. *These significant upgrades greatly support the doctrinal and personnel recommendations presented in this paper, especially intelligence*

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[186] U.S. Naval Sea Systems Command, *LPD-17 Workshop Report, Missions and Operational Capabilities*, April 1996.
[187] PMS-317, NAVSEA Detachment New Orleans, *LPD-17: Transforming America's Expeditionary Force*, Nov. 2003
[188] NAVSEA Deckplate, *LPD-17: A ship built by and for the Expeditionary Warrior*, Issue No. 1, Jan-Feb 1999

production and coordination with inter-agency and special operations forces. Just like each MSSG Marine needs to be a warfighter, the LPD-17 is a warfighter. It's "state-of-the-art command and control suite, substantially increased vehicle lift capacity, large flight deck, and advanced ship survivability features enhance its ability to operate in the unforgiving littoral environment."[189] The LPD-17 is designed to accommodate the MV-22 Osprey, the Expeditionary Fighting Vehicle, and the LCAC. The new LPD-17 can accommodate two LCACs, whereas the Austin Class LPDs could only hold one. An amphibious ready group consisting of an LHD, a ship from the LPD-17 class, and a new LSD can move 8 LCACs, whereas older ARGs could only move three to five.

With split-ARG operations occurring almost every time a MEU deploys, the LPD-17 has the operational capability to work as a command vessel, though not fully command-configured. It can serve as a "mother ship"[190] for expeditionary action groups or small joint task forces, and provides the "capability to cover multiple areas of responsibility, while responding to several crises simultaneously."[191] With this in mind, the MSSG must be prepared for these situations. The LPD-17 will provide the embarkation platform and command and control facilities that will enable the MSSG to operate independent of the ARG/MEU command vessel. During the conduct of war on terrorism operations, this vessel will be the primary supporter of distributed operations and seabased logistics.

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[189] PMS-317, NAVSEA Detachment New Orleans, *LPD-17: Transforming America's Expeditionary Force*, Nov. 2003

[190] PMS-317, NAVSEA Detachment New Orleans, *LPD-17: Transforming America's Expeditionary Force*, Nov. 2003

[191] PMS-317, NAVSEA Detachment New Orleans, *LPD-17: Transforming America's Expeditionary Force*, Nov. 2003

Conclusion

The way we currently operate works, but it can be much better. *If the MEU Service Support Group is to meet the challenges of the future, it needs to expand its capabilities by introducing new and radical training methods, increasing the size of certain key personnel groups, and deploying with reliable equipment that will withstand the rigors of combat.* Up until now, despite deficiencies and shortfalls, the initiative and aggressiveness of Marines has been the catalyst in mission accomplishment. Marines always find a way to make things happen.

A vision of future warfare has been developed and lessons have been learned from more than three years of continuous combat operations. *It is imperative that MSSG commanders take steps so that their units can evolve to meet these new threats. An integral part of this is the combat mindset.* If MSSG Marines are to be warfighters, they must *look, act, and train like warfighters*. The MSSG tables of organization and equipment must match the skill sets required to be a warfighting organization. *These personnel and equipment suggestions are not overnight solutions, but if implemented over a 5-10 year time span they will greatly enhance an already effective and highly trained combat service support element.*

Chapter 8

Recommendations and Conclusions

Under the current program construct, the MEU(SOC) remains relevant in the near term. However, based on future conceptual initiatives, there is substantial room from growth and development. In examining all components of the MEU(SOC) program, the CE, Navy organizations, GCE, ACE and CSSE, there are some shared conclusions. The most pressing issues determining the nature of command relationships and leadership the Marine Corps and Navy intend to pursue under the ESG program review. When the issue of ESG leadership and command and control are resolved, the remaining issues can be addressed in a common forum, with a common purpose. The conclusions drawn from this analysis are not limited to those listed, but perhaps from those which can be inferred as a result of the analysis as a whole.

It is simple to assert improvements such as: newer equipment, better automated systems, more combat training, better articulated and deliberate force rotation plans, closer coordination between units, increased unit continuity and more focus on the most likely mission sets. But relevancy is truly derived from the Regional Combatant Commanders and their impetus to commit MEU(SOC) units in crisis areas based on mission capabilities and interoperability. The ability to operate in today's joint environment is predicated on the ability of the MEU(SOC) to set conditions for joint enabling operations and present a relevant multi-functional combat organization. The MEU(SOC) is capable of performing sustained combat operations, security operations, humanitarian operations and to a limited extent, information operations. These capabilities are not only relevant, but form the basis of joint doctrine and based on the

given analysis present the MEU(SOC) as indeed a relevant force. Continued relevance will hinge on the integration of MEU(SOC) units into the experimental concepts of seabasing, EMW and participation in joint warfighting experiments. The conclusions listed in preceeding chapters indicate the Marine Corps and Navy must provide the MEU(SOC) with the focused training, suitable equipment, cogent leadership, and structure which embraces and fosters integration into the joint force.

Recommendations to strengthen MEU(SOC) organizations and to retain their special operations capabilities are not necessarily at risk. The MEU(SOC) remains capable of performing amphibious raids, humanitarian operations, non-combatant evacuation operations, all cornerstones marking special operations. It is time to reorient MEU(SOC)s on the conclusions listed above by investing in the intellectual rigor associated with the conclusions of this analysis. It is time to address who owns operational control of the Marine Corps assets under the ESG concept, (the MEU CO or the ESG Commander). To decide on which Marine Corps and Navy planning process is suitable for the MEU(SOC). To ensure the MEU CE to keeps pace with emerging technology in command and control. (-Major U.S. Navy conclusions:)_ To standardize training before joining the MEU(SOC) program. To align or tailor Training Exercise and Employment Plans (TEEP)s to the needs of Regional Combatant Commanders. To realign MEU(SOC) BLTs rotation policies in order to better prepare them for “special operations” missions and continuity. To examine restructuring the ACE with an improved and updated aircraft mix and capability set. To address the aircraft age and current operational usages in consonance with the MEU(SOC) program. To increase command and control platforms within the ACE. To train CSSE personnel with a combat

mission mentality from the beginning of training through deployment. To examine CSSE staffing in the areas of Intelligence, Explosive Ordnance Disposal, Military Police, and linguists. To analyze equipment deficiencies in both individual combat equipment and major end item level suitable for MEU(SOC) deployments.

BIBLIOGRAPHY

Periodicals

Bricks, Chad JO2, "ESGEX 2004 makes history." *Marine Corps News*, (April 2004): 32.

Broderick, Matthew E., "MEU(SOC)—Once a threat, now threatened." *Marine Corps Gazette*, (march 1994): 33.

Clark, Vern ADM, USN "Sea Power 21" United States Naval Institute, *Proceedings*, (October 2002): 20.

Denny, Major Darrin, and Captain Daniel Q. Greenwood. "The MEU(SOC) Program in Transition." *Marine Corps Gazette*, (June 2000): 60.

Flores, Susan J., "The Raid is Back!" *Marine Corps Gazette*, (November 1988): 25.

Fulghum, David A. "Send Money; Marine official says a third year of combat is creating emergency in Marine aviation," *Aviation Week & Space Technology*, 14 June 2004, 26.

Gandy, Bruce A., "Maintaining our Special Operations Capabilities." *Marine Corps Gazette*, (November 1989): 37.

Girrier, Robert P. "The Enduring Relevance of Maritime Forces". United States Naval Institute, *Proceedings*, (February 2005): 60.

Gilmore, Gerry J. American Forces Press Service RELEASE NUMBER: 031113-01 DATE POSTED: NOVEMBER 13, 2003 Special Operations: Force Multiplier in Anti-Terror War

Goulding, Colonel Vincent J. "Marine Corps Warfighting Lab Looks at Seabasing," *Marine Corps Gazette*, (September 2002): online edition. URL: <http://www.mca-marines.org/Gazette/0902Goulding.html>. Accessed 3 November 2002.

Graham, Janice M. LCDR,(ret)USN; Willis, Lamar CAPT, (ret) USN. "A bold course to a new Naval service". United States Naval Institute, *Proceedings*, (September 2003): 62.

Gramuglia, Lieutenant Colonel Patrick, and Major Richard Phillips. "Aviation Integration in Operation IRAQI FREEDOM I: A Division Air Officer's Perspective," *Marine Corps Gazette*, May 2004, 28-32.

Guadagno, Captain Joseph and Captain William A Tosick. "The Future of Marine Rotary-Wing Aviation and the "integrated" Air-Ground Team," *Marine Corps Gazette*, August 1995, 16-18.

Hough, Lieutenant General Michael A. "State of Marine Aviation," *Marine Corps Gazette*, May 2004, 11-27.

Hammes, Thomas X. "Polishing the Crown Jewels." *Marine Corps Gazette*, (March 1998): 18-20.

Kelley, General Paul X. "The Marine Corps and Special Operations." *Marine Corps Gazette*, (October 1985): 22.

Keeter, Hunter. "Marine Aviation Community Draws Lessons from Afghanistan", *Defense Daily*, 29 October 2002, 1.

Koehr, Captain David S. "Updating the MEU ACE," *Marine Corps Gazette*, May 1992, 64-65.

Knutson, LtGen Bruce B, Hailston, LtGen Earl B., Bedard, MajGen Emil R., "Marine forces: ready and relevant for the 21st century." *Marine Corps Gazette*, (July 2000): 34.

Laster, James B., "The Marine Corps' role in joint special operations, Are we elite enough?" *Marine Corps Gazette*, (January 1994): 52.

Lingberg, Major Bradley C., "The power of a NEF: But who's in charge?." *Marine Corps Gazette*, (august 1997): 38.

Meyer, Major Lawrence D., "MEU(SOC): Coherent oversight and expanded vision." *Marine Corps Gazette*, (June 1996): 322.

Munsey, Christopher. "Navy Seeks new ways to deploy Marines for war." *Marine Corps Times*, (20 September 2004).

McCorkle, Lieutenant General Frederick. "Transforming Marine Aviation" *Marine Corps Gazette*, May 2000, 24-28.

McCoy, BP LtCol USMC "'Brilliance in the Basics' and Other Expectations of Combat Leaders" *Marine Corps Gazette* September 2004, p 50-52

McKenzie Colonel Kenneth F., Major Roberta L. Shea, and Major Christopher Phelps, "U.S. Marine Corps Marines Deliver in Mountain Storm," *Proceedings*, November 2004.

Murdock, Harry M. "MAU (SOC) A Powerful Maritime Force" *Marine Corps Gazette,* Aug 1987, 66-71.

Mullen III, Major William F., "The MEU(SOC) program: Are we preparing properly." *Marine Corps Gazette*, (March 1997): 27.

Osborn, Captain Roy A. "A New Face for the ACE: Reconfiguration of the MEU ACE," *Marine Corps Gazette, August 1995, 19-20.*

Olson, Jon R. "An alternative vision of Sea Power 21". United States Naval Institute, *Proceedings,* (October 2003): 80.

Pierce, Terry C. CDR, USN "Expeditionary Strike Groups are misaligned." United States Naval Institute, *Proceedings*, (May 2004): 04.

Petrea, Howard CAPT, USN; Pierce, Terry CDR, USN; Jackson, Rick CDR, USN. "Expeditionary strike group becomes reality". United States Naval Institute, *Proceedings*, (October 2003): 44.

Polmar, Norman "Sea Base Ships for the Future." United States Naval Institute, *Proceedings*, (March 2005): 104.

Reilly, J.E., "Use Infantry for Raids." *Marine Corps Gazette*, (September 1965): 61.

Ratliff, Jr., Lieutenant Colonel Arch, Lieutenant Colonel David P. Martin and Lieutenant Colonel Anthony C. Zinni. *National Command Authority Options for the Strategic Employment of Forward Deployed Marine Air Ground Task Forces,* Washington DC: The National War College, 1984.

Shaker, Thom "Conduct of War Is Redefined by Success of Special Forces" http://64.233.161.104/search?q=cache:Yc6AFdEXEcJ:courses.albion.edu/Archived_Spring2002/

Stavridis, James and Pandolfe, Frank. "From Sword to Shield: Naval Forces in the Global War on Terror" United States Naval Institute, *Proceedings*, (August 2004): 48.

Stopyra, Chris LCDR "Expeditionary Strike Group: Put a Marine in charge". United States Naval Institute, *Proceedings*, (July 2003): 57.

Sullivan, Steven M., "Forward presence: MEU(SOC)s in action today and tomorrow." *Marine Corps Gazette*, (August 1995): 38.

Troshinsky, Lisa. "Iraqi operations straining Marine aviation, official says;" *Aerospace Daily & Defense Report*, 9 June 2004, 3.

Undeland, David K., "Get Rid of the MEU?" *Marine Corps Gazette*, (June 1988): 20.

Yunker, Chris., "MEU(JOC) and operational maneuver." *Marine Corps Gazette*, (June 1996): 26.

Yunker, Chris., "MEU(JOC) Stage II: Growing an operational capability." *Marine Corps Gazette*, (September 1996): 73.

Woods, Randy. "Sources: Two Expeditionary Strike Forces Will Deploy Next Year." *Inside the Navy*, 29 July 2002. URL: <http://ebird.dtic.mil/Jul2002/s20020729sources.htm>. Accessed 29 July 2002.

Williams, Thomas W., "MEU(SOC): The jewel in the crown of our corps." *Marine Corps Gazette*, (March 1994): 30.

Zinni, Anthony C. "Forward Presence and Stability Mission: The Marine Corps Perspective." *Marine Corps Gazette*, vol 77 (March 1993): 56-70.

U.S. military details demise of Hussein's sons. Wednesday, July 23, 2003 Posted: 11:35 AM EDT (1535 GMT) www.cnn.com/2003/WORLD/meast/07/23/fatal.firefight/

BBC News Online How Saddam Hussein was captured. http://news.bbc.co.uk/1/hi/world/middle_east/3317881.stm

Published Works

Millett, Allan R. *Semper Fidelis: The History of the United States Marine Corps*. New York: Macmillan Publishing, 1980.

Merriam-Webster Online URL: http://www.m-w.com/cgi-bin/dictionary. Accessed 22 December, 2004.

Department of Defense Dictionary of Military Terms, www.dtic.mil/doctrine/jel/doddict/data/d/01730

Unpublished Works

Bacon, John. Expeditionary Strike Group. Unpublished paper on issues and concerns pertaining to Expeditionary Strike Group. MAGTF Staff Training Program, 2004.

Garcia, Captain, E. *MEU Training: Shortchanging the ACE.* Unpublished paper. United States Marine Corps Amphibious Warfare School, 2002.

Hammond, Captain M.E. *Rethinking Assault Support.* Unpublished paper. United States Marine Corps Amphibious Warfare School, 2002.

Laatsch, Major Robert W. *Marine Corps Heavy Helicopter Lift in the 21st Century with the CH-53X.* Unpublished master's paper. United States Marine Corps Command and Staff College, 2003.

Mattis Major James N USMC Amphibious Raids: An Historical Imperative For Today's Marines CSC 1985

Nicholson, Major Lawrence D. *An Analysis of the Twenty-One Missions of the Marine Corps Expeditionary Unit (Special Operations Capable).* Unpublished masters paper. United States Army Command and General Staff College, 1994.

Page, Captain Thomas S. *Rebuilding the Spear.* Unpublished paper on reorganization of the MEU ACE. United States Marine Corps Expeditionary Warfare School, 19 February 2003.

Papaj, Major Christopher J. *Can The Marine Expeditionary Unit (Special Operations Capable) still enable a Marine Expeditionary Brigade?* Unpublished masters paper, United States Marine Corps Command and Staff College, 2000.

Schrecker, Major Mark G. *The MEU(SOC) Predeployment Training Program: Training the MEU or the MSPF?* Unpublished masters paper. United States Marine Corps Command and Staff College, 2001.

Military Publications and Briefings

"Comments from Expeditionary Strike Group Initial Planning Team." Marine Corps Combat Development Command. URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>. Accessed 15 November 2004

CMC. All Marine Message 006/01 *Naval Command Relations.* Washington, D.C.: Headquarters, U.S. Marine Corps, 23 Feb 2001.

CMC. All Marine Message 312/97 *Ship to Objective Maneuver.* Washington, D.C.: Headquarters, U.S. Marine Corps, 10 Nov 1997.

CMC. All Marine Message 023/88 *Change of Marine Corps Task Unit Designations.* Washington, D.C.: Headquarters, U.S. Marine Corps, 3 Feb 1988.

CMC. All Marine Message 212/89 *Marine Air-Ground Task Force Policy and Terminology*. Washington, D.C.: Headquarters, U.S. Marine Corps, 9 Nov 1989.

CMC, USMC, Marine Air-Ground Task Forces (MAGTF), NAVMC 2710 (Washington, D.C.,1985), p. 6-10.

"East Coast Proof of Concept, Pre-deployment Data Collection." Marine Corps Combat Development Command.
URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>. Accessed 15 November 2004

"ESG IPT USMC Equities." Marine Corps Combat Development Command.
URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>. Accessed 15 November 2004

"ESG Staffing Impacts on Manpower." Marine Corps Combat Development Command.
URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>. Accessed 15 November 2004

"ESG Update." 15 April 2004. Marine Corps Combat Development Command.
URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>. Accessed 15 November 2004

"Expeditionary Strike Force Concept" 12 March 2003. Deep Blue. Accessed 12 December 2004

First Battalion Fifth Marines Long Range Training Plan January 2000 to July 2001

Gray, General Al, "Green letter", issued 1987 by Box #34 Gray Research Center Historical Archives, Quantico Virginia.

I Marine Expeditionary Force Letter of Instruction For 13th MEU Deployment 05-1 Oct 2004

"II MEF Input to ESG Integrated Process Team Topics." Marine Corps Combat Development Command.
URL: <https://www.mccdc.usmc.mil/ESG/ESG_Brief2.htm>. Accessed 15 November 2004

Joint Staff. *Joint Strategy Review 1999.* As cited in Garza, Colonel David C., Stainislawski Debra K., and Worley, D. Robert, "Asymmetry and Anti-Access."

Joint Staff. Joint Publication 3-02. Joint Pub for Amphibious Doctrine, Joint Staff J-3, Washington DC, November 2001.

Joint Staff. *Joint Operations Concepts 2003*. Director for Operational Plans and Joint Force Development, Joint Staff J-7 Joint Vision and Transformation Division Pentagon, Washington DC, November 2003.

Kelly, P.X. Commandant of the Marine Corps, MEMORADUM, *The Marine Corps and Special Operations*, Washington, D.C.: Headquarters, U.S. Marine Corps, 7 Jun 1985.

Krulak, Charles Gen, USMC. "Operational Maneuver From the Sea" Headquarters Marine Corps Washington DC, 04 January 1996.

Krulak, Charles Gen, USMC, Forward, Marine Corps Doctrinal Publication 1 Headquarters Marine Corps Washington DC

Marine Corps Order (MCO) 3000.16 *Operational Policy for Marine Air-Ground Task Force (Special Operations Capable)* Washington, D.C.: Headquarters, U.S. Marine Corps, 18 Jun 1991.

Marine Corps Bulletin (MCBul) 3125. *THE MARINE AVIATION PLAN FOR FISCAL YEAR 2004.* Washington DC: Headquarters, U.S. Marine Corps, 15 Jun 04.

Marine Corps Order 3500.28 *MARINE CORPS UNIT COHESION PROGRAM STANDARD OPERATING PROCEDURES* 19 May 1999 , Washington, D.C.: Headquarters, U.S. Marine Corps Enclosure (2) Synchronization model p. 2

Marine Corps Order P3500.7 Marine Corps Ground Training and Readiness (T&R) Program Washington, D.C.: Headquarters, U.S. Marine Corps p 1-3., 7 August, 2002.

Marine Corps Order (MCO) 3502.3A. *MARINE EXPEDITIONARY UNIT (SPECIAL OPERATIONS CAPABLE) PREDEPLOYMENT TRAINING PROGRAM (MEU (SOC) PTP).* Washington D.C.: Headquarters, U.S. Marine Corps, 10 Jan 01.

Marine Corps Order (MCO) 3120.9B. *Policy for Marine Expeditionary Unit (Special Operations Capable) (MEU (SOC)).* Washington DC: Headquarters, U.S. Marine Corps, 25 Sep 01.

Marine Corps Order (MCO) 3120.3. T*he Organization of Marine Air-Ground Task Forces.* Washington, D.C.: Headquarters, U.S. Marine Corps, 27 Dec 1962.

Marine Corps Order (MCO) 3120.8A. *Policy for the Organization of Fleet Marine Forces for Combat.* Washington, D.C.: Headquarters, U.S. Marine Corps, 26 July 1992.

Marine Corps Order (MCO) 3120.9C (DRAFT). *Policy for Marine Expeditionary Unit (Special Operations Capable)*. Washington, D.C.: Headquarters, U.S. Marine Corps, November 2002.

MAGTF Staff Training Program. MEU Issues Update Brief. July 2004.

Marine Corps Order (MCO) 3120.9C. Policy for Marine Expeditionary Unit (Special Operations Capable). Washington, D.C.: Headquarters, U.S. Marine Corps, November 2002.

Marine Corps Order (MCO) 3502.3B. Policy for Marine Expeditionary Unit (Special Operations Capable) Pre-deployment Training Program (Draft). Washington, D.C.Headquarters, U.S. Marine Corps, July 2004.

MCRP 3-0B p 1-3 How to Conduct Training Washington, D.C. Headquarters, U.S. Marine Corps 25 November, 1996.

"Marine Corps Warfighting Concepts, Emerging Capabilities, and Initiatives." URL: <http://hqinet001.hqmc.usmc.mil/p&r/concepts/2004/TOC2.HTM>. Accessed 1 December 2004.

Marine Corps Warfighting Publication 3-43.1 Raid Operations Washington, D.C. Headquarters, U.S. Marine Corps, p 5-4.

Simmons, Edwin H. BGen, 'A*mphibious' becomes 'Expeditionary'*, Fortitudine, Historical Bulletin Vol XVIII, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, Spring-Summer 1988.

Stone, Sonja. "ESG 3 Proves Flexibility, Mobility with First Staff Cross Deck at sea." Navy Newsstand, 15 September 2004. URL: <www.news.navy.mil>. Accessed 15 December 2004.

Strategic Initiatives Group, U.S. Marine Corps. *IBCT vs. MEB*. Brief, 8 August 2001.

The Basic School, Principles of Amphibious Operations Student Handout, The Basic School Marine Corps Combat Development Command Quantico, Virginia 22134-5019 p6

U.S. Marine Corps. *Marine Corps Operations since 1776*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 2004.

U.S. Marine Corps. *Lineage of the 11th Marine Expeditionary Unit 1979-2003*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 7 Oct 2003.

U.S. Marine Corps. *Lineage of the 13th Marine Expeditionary Unit 1985-1998*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 1 Jul 1998.

U.S. Marine Corps. *Lineage of the 15th Marine Expeditionary Unit 1970s-2003*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 7 Oct 2003.

U.S. Marine Corps. *Lineage of the 22nd Marine Expeditionary Unit 1960-2002*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 27 Jun 2003.

U.S. Marine Corps. *Lineage of the 24th Marine Expeditionary Unit 1960s-2003*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 7 Oct 2003.

U.S. Marine Corps. *Lineage of the 26th Marine Expeditionary Unit 1980s-2003*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 2 Jul 2004.

U.S. Marine Corps. *Lineage of the 31st Marine Expeditionary Unit 1967-2000*, History and Museums Division, Washington D.C.: Headquarters, U.S. Marine Corps, 18 Jul 2001.

U.S. Marine Corps. *Expeditionary Maneuver Warfare.* Washington, D.C., February 2002.

U.S. Marine Corps. *Marine Task Force 58's Operations in Afghanistan*. URL: <http://www.strategypage.com/articles/tf58/forming.asp>.

U.S. Marine Corps. *Expeditionary Units.* URL: http://www.marines.mil/marinelink/websites.nsf/unitsexpedAccessed 13 October, 2004.

United States Marine Corps Warfighting Publication (MCWP) 3-2: *Aviation Operations.* Washington DC: GPO, 2000.

U.S. Marine Corps. *MAGTF Aviation and Operational Maneuver from the Sea.* Washington DC: Headquarters, U.S. Marine Corps, 29 Jan 99.

U.S. Marine Corps, Expeditionary Warfare Training Group, Atlantic Ground Operations Chief Course Rapid Response Planning Process (R2P2) Student Outline OC27

Interviews

Frick, Colonel (Ret)Andrew. Marine Corps Training & Education Command. Interviewed by authors, 16 Oct 2004.

Killion, Lieutenant Colonel Michael. 22D Marine Expeditionary Unit. Interviewed by authors, 24 August 2004.

Khan, Lieutenant Colonel Asad. 2nd Marine Division. Interviewed by author, 3 December 2004.

Lefebvre, Brigadier General Paul. MAGTF Staff Training Program. Interviewed by authors, 20 August 2004.

Lowe, Colonel James. Marine Corps Base Quantico. Interviewed by authors, 24 September 2004.

Waldhauser, Brigadier General Thomas. Marine Corps Warfighting Lab. Interviewed by authors 18 November 2004.

CAPT Terry O'Brien, USN. Interview *"View on ESG and PHIBRON Manning"* Barnum Hall, Little Creek NAB, Norfolk VA. 05 November 2004.

CAPT Michael Hawley, USN. Interview *"View on ESG and PHIBRON Manning"* Barnum Hall, Little Creek NAB, Norfolk VA. 05 November 2004.

CDR Robert Irelan, USN. Interview, *"Views on ESG and PHIBRON Manning"* Barnum Hall, Little Creek NAB, Norfolk VA. 05 November 2004.

CAPT Norma Hackney, USN. Interview, *"Views on ESG and PHIBRON Manning"* Barnum Hall, Little Creek NAB, Norfolk VA. 05 November 2004.